

UNITED STATES DISTRICT COURT

FOR THE WESTERN DISTRICT OF WISCONSIN

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WISCONSIN RESOURCES PROTECTION  
COUNCIL, CENTER FOR BIOLOGICAL  
DIVERSITY and LAURA GAUGER,

Plaintiffs,  
-vs-

Case No. 11-CV-45-BBC

FLAMBEAU MINING COMPANY, INC., Madison, Wisconsin  
May 25, 2012  
Defendant. 9:00 a.m.

\* \* \* \* \*

STENOGRAPHIC TRANSCRIPT OF FIFTH DAY OF COURT TRIAL  
HELD BEFORE DISTRICT JUDGE BARBARA B. CRABB,

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10 Also present: Fred Fox

11 \* \* \* \* \*

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THE CLERK: Case Number 11-CV-45-BBC.  
*Wisconsin Resources Protection Council, et al v.*  
*Flambeau Mining Company* is called for fifth day court  
trial. May we have the appearances, please.

MS. MCGILLIVAY: Morning, Your Honor. Pam  
McGillivay and the same cast at counsel table.

THE COURT: Thank you.

MR. VAN CAMP: Good morning. Harry Van Camp  
representing Flambeau Mining, with Scott Paler also  
representing Flambeau Mining Company. Mr. Fred Fox from  
Flambeau Mining Company, and we're assisted by Susan  
George. Thank you.

THE COURT: Thank you. Anything you wish to  
take up before we start calling witnesses this morning?

MR. VAN CAMP: I have -- I'm sorry.

MS. MCGILLIVAY: I was just going to say no,  
Your Honor. Thank you.

THE COURT: Did you talk to the court reporter  
about when the transcripts would be ready for your use?

MS. MCGILLIVAY: Yes, and the date that came up  
on ECF for our deadline is fine. There won't be a  
delay.

THE COURT: Which is what?

MS. MCGILLIVAY: I think it was the 21-day

1 automatic notice for motion to dismiss would put it at  
2 June 13th.

3 MR. VAN CAMP: Oh.

4 THE COURT: All right. And then you would have  
5 five days from then to --

6 MS. MCGILLIVAY: I believe the automatic date  
7 that came up for the reply for defendant was June 20th,  
8 seven days.

9 THE COURT: Okay.

10 MR. VAN CAMP: Your Honor, may I speak to that  
11 issue?

12 THE COURT: You may.

13 MR. VAN CAMP: I understood yesterday from  
14 conversations with the court reporters that the  
15 transcript, at least at the level that I have it, which  
16 is very good, but it's still nonetheless a dirty copy,  
17 could be available for them this morning and it seems to  
18 me it's in everybody's best interest to move this  
19 forward and not wait until --

20 THE COURT: Oh, I would far prefer to do that.  
21 If you had --

22 MR. VAN CAMP: They can get that from the court  
23 reporters so -- and they could get that today or  
24 tomorrow or whatever. I mean very quickly. At least  
25 I've been assured of that. Because what they've done

1 for me they already have and so they could get that  
2 immediately and then we can move this forward.

3 MS. MCGILLIVAY: Your Honor, I didn't -- that's  
4 exactly true. That's why I thought that the automatic  
5 deadlines, we didn't need to ask to postpone those at  
6 all. There isn't going to be a delay in the transcript.

7 THE COURT: Oh, good. So you could have it in  
8 in a week. So Monday the -- let's see, Monday is the  
9 28th. Monday the 4th of June. Right, Monday the 4th.

10 MS. MCGILLIVAY: Thank you, Your Honor.

11 THE COURT: That would be good or all of our  
12 memories would be a lot crisper.

13 MS. MCGILLIVAY: Your Honor, can we clarify if  
14 there's a reply deadline on that motion?

15 THE COURT: I wasn't really planning to have  
16 one.

17 MS. MCGILLIVAY: Okay. Thank you, Your Honor.

18 MR. VAN CAMP: I have one matter. The -- I'm  
19 not quite sure what happened with the Betsy Day  
20 transcript. I'm glad we didn't sit and watch it. I  
21 understand the Court is going to read it.

22 THE COURT: Right.

23 MR. VAN CAMP: But I didn't, as a result, move  
24 to enter the nonnarrative exhibits attached to her  
25 report.

1 THE COURT: Okay.

2 MR. VAN CAMP: Those are Exhibits 573, 574, 575  
3 and 576. And I would move for their admission.

4 THE COURT: Any objection to those exhibits?

5 MS. MCGILLIVAY: No, Your Honor.

6 THE COURT: Okay. They're received.

7 MR. VAN CAMP: Thank you, Your Honor.

8 THE COURT: Anything else?

9 MR. VAN CAMP: Nothing further.

10 THE COURT: All right. You may call your first  
11 witness.

12 MR. VAN CAMP: Thank you, Your Honor. At this  
13 time Flambeau Mining Company will call Dr. G. Allen  
14 Burton.

15 **G. ALLEN BURTON, DEFENDANT'S WITNESS, SWORN,**

16 DIRECT EXAMINATION

17 BY MR. VAN CAMP:

18 Q Good morning, Dr. Burton.

19 A Good morning.

20 Q Would you please state your name for the record.

21 A Glen Allen Burton, Junior.

22 Q And where do you reside Mr. Burton or Dr. Burton.

23 Sorry.

24 A Andover, Michigan.

25 Q You've been retained in this case by the defendant

1 to prepare an expert report; correct?

2 A Right.

3 Q And there is a copy of that expert report on the  
4 witness stand beside you, which is exhibit -- has been  
5 marked as Exhibit 588. I'd like to begin your testimony  
6 this morning by asking you to review with the Court your  
7 education first. That's post-high school education.

8 A I got my bachelor's in biology and chemistry at  
9 Ouachita Baptist University in Arkadelphia, Arkansas.  
10 Then I went on and got a master's at Auburn University  
11 in microbiology; then went to the University of Texas at  
12 Dallas and got a Ph.D. in environmental science,  
13 specializing in aquatic toxicology. And then a post-doc  
14 at the Cooperative Institution for Environmental  
15 Research in Environmental Sciences at the University of  
16 Colorado in Boulder.

17 Q And then if you --

18 THE COURT: What's the name of the institution?

19 THE WITNESS: CIRES. Cooperative Institute for  
20 Environmental Research -- I don't know.

21 THE COURT: Whatever.

22 THE WITNESS: It's in the record.

23 BY MR. VAN CAMP:

24 Q Do you want to take a look at the -- I think it's  
25 the second page of Exhibit 588. In that first paragraph

1 under qualifications and experience there's a reference.

2 A CIRES. Cooperative Institute for Research and  
3 Environmental Sciences. I live by acronyms. Sorry.

4 Q Why don't we have the acronym then.

5 A CIRES. C-I-R-E-S.

6 Q Okay. Thank you very much. And then would you  
7 please describe your employment history since that time.

8 A Since then I went from there to being an Assistant  
9 Professor at the Wright State University in Dayton, Ohio  
10 and I stayed there for 23 years. And four years ago, I  
11 took a position at the University of Michigan in the  
12 School of Natural Resources and Environmental Sciences  
13 and have a dual appointment in the Department of Earth  
14 and Environmental Sciences.

15 Q Have you ever had any work related to the EPA  
16 speaking of...

17 A My funding, research funding started as an  
18 Assistant Professor with the US EPA and has continued  
19 since.

20 Q And what types of courses do you teach in your  
21 position?

22 A Well, my areas focus on water quality and  
23 environmental risk assessment, so I teach courses  
24 related to that. Right now the only courses I'm  
25 teaching is ecological risk assessment and a seminar on



1 Great Lakes stressors.

2 Q I'd like to draw your attention to approximately  
3 the sixth page where you have your vitae.

4 A Okay.

5 MR. VAN CAMP: I will note for the Court that  
6 Dr. Burton's vitae is 45 pages long and I don't intend  
7 to walk him through all of the vitae, but we will offer  
8 it.

9 THE COURT: And that's 588?

10 MR. VAN CAMP: The entire report is 588. What  
11 I would like to do is mark his resume as Exhibit 661 so  
12 that it becomes a part of the record without having to  
13 go through everything. We'll go through some of it.

14 THE COURT: All right.

15 BY MR. VAN CAMP:

16 Q Would you please provide a summary of the  
17 qualifications and experiences that appear in your  
18 resume attached to your expert report.

19 A Well, I began really getting into sediments during  
20 my Ph.D. and my research has focused a lot on sediments  
21 and how they relate to overlying waters and how they  
22 affect biological quality. I also worked for the US EPA  
23 while I was doing my Ph.D. and I was in charge of the  
24 five states in Region 6 and their Toxics Monitoring  
25 Strategy and helped them develop ways to determine if

1 toxics were an issue or not. That was a long time ago.

2 But since then, my work has really focused at every  
3 level of the ecosystem from the bacterial all the way up  
4 to fish and amphibians, trying to understand what the  
5 major stressors are affecting them. It's very  
6 complicated because it's not just the chemistry that's  
7 going on, it's the habitat and the flow and the  
8 nutrients and all of those things that obviously aquatic  
9 organisms are exposed to.

10 So I really try to tease out what the dominant  
11 factors are that are affecting the ecosystem, and that  
12 is a very applied application because you can't really  
13 go in and fix an ecosystem, restore it, remediate it in  
14 an efficient way unless you know what the major  
15 stressors are. For example, you know, chemistry, you  
16 wouldn't want to get in and spend 10 million dollars  
17 dredging a harbor if that wasn't the real problem that  
18 was affecting the ecosystem.

19 Q Let me back up just for a moment before we go to  
20 the Flambeau Mine site in Ladysmith. Are you a member  
21 of any professional or academic associations?

22 A A number, but the one I've been more active in is  
23 the one that I just returned from, the Society of  
24 Environmental Toxicology and Chemistry. It's a  
25 international organization, over 6,000 members from 85

1 countries, and I served as the president of that  
2 organization about four or five years ago, and that's  
3 where I've spent most of my professional time in a  
4 service capacity.

5 Q As I understand, you flew in from there yesterday  
6 from Berlin?

7 A Yes. Long day yesterday, and we're happy that  
8 we're testifying in the morning.

9 Q Do you have any publications?

10 A Yes, a few. Probably 155 or 60 that are  
11 peer-reviewed publications, and over -- well over 200,  
12 including the technical reports. Two or three books.  
13 And I now serve as the editor-in-chief for the journal  
14 Environmental Toxicology and Chemistry.

15 Q Could you give us just some examples of the areas  
16 in which you have publications.

17 A The two most recent big publications I did in the  
18 last few months were dealing with contaminated sediments  
19 in the context of multiple stressors. That was a large  
20 review article.

21 Another article I just published was *It's Time For*  
22 *an Ecosystem Reality Check*, which is getting at the  
23 approach of the idea that our assessments of what's bad  
24 in the ecosystem have been too chemocentric and haven't  
25 considered all of the issues and weight of evidence kind

1 of approach.

2 Q In connection with the Flambeau Mining case, did  
3 you review any documents?

4 A Yes. I reviewed a number of documents provided to  
5 me that included the Flambeau Mining Company monitoring  
6 results from the studies that they have done and the  
7 studies that the Wisconsin DNR has done there. These  
8 were, I think, as exhibits from Craig Roesler's  
9 depositions; looked at the State of Wisconsin's  
10 guidelines for aquatic life use designations that were  
11 appropriate, and some memos from Lynch and Hammer that  
12 were related to designations. I believe that's most of  
13 it.

14 Q If you don't mind looking at the second page of  
15 your qualifications, which is about the fourth page of  
16 your report, there are some references to some  
17 Peerenboom memorandum. Do you see those?

18 A Yes, they're all there.

19 Q If you would review the --

20 A Yeah. The Peerenboom memorandum from Waterworks to  
21 Ken Markart 2006; several from Roesler; the Chambers  
22 expert report; Wisconsin DNR's Laura Gauger v. FMC  
23 complaint; monitoring Fleming. That looks like most of  
24 it.

25 Q Did you have an opportunity to visit the Flambeau

1 Mine site?

2 A Yes. I went there in late October last year and  
3 spent the day there.

4 Q Could you tell us what you did while you were  
5 there?

6 A I took a tour of the site, looked at upstream,  
7 downstream, the biofilter area, walked Stream C, down in  
8 the river and looked up upstream/downstream of the mouth  
9 of Stream C, and went over and looked as best I could at  
10 the reference stream that's south of there that's being  
11 used. A lot of that was private property.

12 Q Okay. Have you reached any opinions in this case?

13 A Certainly. The stream when I was there was  
14 essentially dry. There was a small --

15 Q Let me stop you --

16 THE COURT: You're talking about the stream  
17 below?

18 THE WITNESS: Stream C.

19 THE COURT: South of Copper Park Lane.

20 THE WITNESS: Well, I walked the whole part,  
21 but there was very little water in the biofilter, and in  
22 Stream C there was a small pool about ten meters long,  
23 five centimeters deep, just south of Copper Lane 50  
24 yards or so. And then I walked the rest of the stream  
25 down to the mouth and there was no water. It actually

1 didn't look much like a stream, it looked more like a  
2 swale until we got down to the lower end where the  
3 gradient was actually steep and there was, you know,  
4 some erosion that had occurred down there at the mouth.

5 The mouth of Stream C was actually the back water  
6 of the Flambeau, which went about a meter into the  
7 stream itself. And then I looked -- well, I obviously  
8 looked for life in the little pool and then down at the  
9 mouth and turned over rocks. It was a very qualitative,  
10 not quantitative kind of assessment. And there was  
11 nothing in the little pool that I could find.

12 I also got into a little pool that was at the  
13 culvert that's at the road. It's Highway 23?

14 Q 27.

15 A Yeah. It was there and actually saw nothing in any  
16 of those areas.

17 THE COURT: When you say *nothing*, are you  
18 talking just about water?

19 THE WITNESS: I'm talking about aquatic life.  
20 I saw no fish. I saw no invertebrates. When I got down  
21 to the mouth, there were a few invertebrates in the  
22 Flambeau, but virtually nothing. So it was nice being  
23 able to get the report that the University of  
24 Wisconsin-Stevens Point did where they were able to  
25 sample the invertebrates. But what surprised me of

1 course was the -- it just didn't look like a stream, it  
2 looked more like a drainage that was occasionally wet.

3 And then when I drove down to the reference stream,  
4 it was flowing. It was full of water through the field  
5 that I could actually see. And that, right off the bat,  
6 really raised the question to me whether it was an  
7 appropriate reference. When I looked at the aerial  
8 photographs, the exhibits that were provided, the site,  
9 you can see that the reference watershed is a lot more  
10 open. It's got maybe half of it is forested roughly,  
11 which would allow for more runoff. It's very flat,  
12 contrary to what's said in the report. I'm sure there's  
13 a gradient that's down by the river like there is at  
14 Stream C. But the fact that there's water in it and  
15 it's sunny automatically makes it an inappropriate  
16 reference to a stream where there's no water and it's  
17 shaded.

18 BY MR. VAN CAMP:

19 Q And after the documents that you reviewed and your  
20 visit to the site, would you please tell the Court what  
21 opinions you reached regarding aquatic life in Stream C.

22 A Well, my opinions are based on a huge wealth of  
23 literature. If you go back to the classic publication  
24 by Hynes in 1970, *The Ecology of Running Water*, where he  
25 has a thousand references that really document the

1 importance of flow. And then in my report I cite three  
2 well-known publications that have happened in recent  
3 years up to last year that again document the incredible  
4 importance as being the most important factor in a  
5 stream for aquatic life.

6 So if that is the major stressor, then it really  
7 raises the question of how you assess a stream that has  
8 no water in it for extended periods. Wisconsin DNR's  
9 guidelines in 2004 on aquatic life used designations,  
10 how to set those; sets out the fact that this stream, as  
11 agreed by Wisconsin's Hammer and Lynch, should be in a  
12 limited aquatic life designation, and they note in those  
13 reports correctly that the kinds of organisms that live  
14 in these ephemeral intermittent streams are typically  
15 very, very tolerant organisms, tolerant of stress, as  
16 they would have to be, because there's no water part of  
17 the time.

18 So you're going to expect very different  
19 communities than you would find like in the reference  
20 stream where you have the water.

21 THE COURT: When you say *reference stream*, are  
22 you referring to Stream C, below Copper Park?

23 THE WITNESS: The reference stream is the one  
24 designated by the State is the reference which is south  
25 of Stream C.



1 THE COURT: South of Stream C?

2 THE WITNESS: Right.

3 THE COURT: I'm not following what -- what do  
4 you call the reference stream?

5 THE WITNESS: The same one that the Wisconsin  
6 DNR is calling the reference stream. It doesn't have a  
7 name I don't believe. I'm not sure how else to call it.  
8 It's just referred to in the exhibits as the reference  
9 stream, and we have some very good pictures of it in the  
10 exhibits also.

11 MR. VAN CAMP: All of the studies of Stream C  
12 have been comparing it to a separate stream that has  
13 been referred to by Roesler and by others from the State  
14 of Wisconsin as a reference stream. It's an entirely  
15 separate stream.

16 THE COURT: That hasn't been identified, has  
17 it?

18 MS. WESTERBERG: I'm going to object to the  
19 testimony by counsel.

20 THE COURT: I agree, but I'm really -- I don't  
21 know what this stream is, whether it's been identified.  
22 So I would appreciate some help on that.

23 MR. VAN CAMP: Okay. Just let me ask the  
24 witness where it is with reference to Stream C and how  
25 you got there and so forth.

1 THE WITNESS: Well, I took the aerial  
2 photograph that was provided in the Roesler report that  
3 had a road and I went down there, and with the help of  
4 the state policeman that stopped me for speeding, I  
5 found the stream and it's just south of the property, I  
6 believe about two miles. And this is the one that for  
7 aquatic life and for chemistry the comparisons are being  
8 made to Stream C with this stream. So that's -- and  
9 they're calling it the reference. That's why I -- so to  
10 determine if something is impacted, you have to have a  
11 base. What are you comparing to. Hence the reference.

12 THE COURT: Okay. It has no other name.

13 THE WITNESS: None that I'm aware of.

14 BY MR. VAN CAMP:

15 Q Going back to Stream C, you have identified what  
16 you've said was the major stressor and I understand that  
17 that's the flow issue. What does that tell you about  
18 the organisms that you would find beyond the fact that  
19 they are tolerant but as it relates to copper and zinc?

20 MS. WESTERBERG: Objection to leading.

21 THE COURT: Overruled.

22 THE WITNESS: Tolerant is used in a very broad  
23 sense and always has been by aquatic biologists. That  
24 means just what it is, tolerant of their environmental  
25 conditions. So those can be physical, chemical

1 conditions. So here we're pointing out flow. It also  
2 means these tolerant organisms are usually tolerant to  
3 chemical stressors such as copper and zinc.

4 And so when you put on top of that the life cycle  
5 requirements for organisms that live periodically  
6 without water, you end up with things like Chironomidae,  
7 the midges, which were identified as being in Stream C.  
8 While these tend to be tolerant species, they're very  
9 short life cycles, so if there's water for a period of  
10 time, they can proliferate. So it's not surprising you  
11 find these organisms there. You wouldn't expect to find  
12 the other species they refer to: *Hyalella azteca*, which  
13 is a small amphipod which has a longer life cycle and  
14 needs to have water to survive.

15 But you find those, the amphipods in the reference  
16 stream because there's water there more. Plus it's  
17 sunny, and amphipods like to feed on the algae that  
18 grows in the sunlight that's on the bottom, it's on the  
19 rock, it's on the limbs, wherever. They feed on  
20 vegetation. So you'll find better conditions from them  
21 in that reference stream than you would find.

22 They also tend to be a little more sensitive to  
23 metals than the midges are. So you could say well,  
24 they're not in Stream C because of the metals, but  
25 they're probably not in Stream C for other reasons.

1 There's not any water a lot of the time and the food  
2 supply is not as good for them possibly.

3 So we've got different populations living there.  
4 Yet when you go -- oh, and the other thing that's  
5 interesting about the midges and the amphipods, that the  
6 US EPA chose to pick those organisms as the surrogate  
7 species to protect aquatic life. So they developed  
8 standard toxicity tests with those species. So they can  
9 be very sensitive to metals and very good indicators,  
10 and the idea being with EPA, like it is for ceriodaphnia  
11 and the fathead minnow and the algae, which you'll hear  
12 more about from Dr. Fairbrother, is if these species are  
13 doing well, 95 percent of the other species will be  
14 doing well. That's why EPA picked them to be surrogate  
15 species.

16 Q So based on what you read about Stream C and what  
17 you observed when you observed Stream C, did you come to  
18 any opinions regarding the fact that the water quality  
19 standards for zinc and copper may be exceeded in those  
20 -- in Stream C?

21 A Well, I couldn't draw any of those conclusions from  
22 my site visit. I had to rely on the monitoring reports  
23 that had been done. But what that showed is that there  
24 was -- when you got to the mouth of Stream C where there  
25 actually was water continuously, there was no impact to

1 the benthic invertebrates there, upstream or downstream  
2 of the mouth where the discharge was.

3 Q When you say there was no impact, what are you  
4 speaking about impact that is a result of?

5 A As a result of outflow of Stream C and the elevated  
6 levels of copper that they were reporting.

7 Q Dr. Burton, have you expressed those opinions today  
8 to a reasonable degree of scientific certainty within  
9 your field?

10 A Yes.

11 MR. VAN CAMP: I have no further questions for  
12 this witness.

13 THE COURT: Ms. Westerberg.

14 MR. VAN CAMP: I just wanted to move Exhibit  
15 661 into evidence, which is Dr. Burton's resume.

16 MS. WESTERBERG: No objection, Your Honor.

17 THE COURT: Received.

18 CROSS-EXAMINATION

19 BY MS. WESTERBERG:

20 Q Morning, Dr. Burton. I'm --

21 A Good morning.

22 Q -- Christa Westerberg, one of the attorneys for  
23 plaintiffs. You said you visited the site once on -- in  
24 late October of 2011; correct?

25 A Correct.

1 Q Okay. That's not a high flow time of year for  
2 streams. Would you agree?

3 A Agree.

4 Q Okay. Not a time when events like spawning  
5 typically occur; correct?

6 A No. Usually springtime, except for some of these  
7 small fish species will spawn throughout the summer.

8 Q But you weren't there in the summer either; right?

9 A Correct.

10 Q And spring also would be at a higher flow time of  
11 year; correct?

12 A Yes.

13 Q Do you know how long Stream C flows in the spring?

14 A No. I really haven't seen any data that shows  
15 that.

16 Q Okay. You haven't been provided with any data  
17 showing that.

18 A No.

19 Q Would you agree that providing a spawning location  
20 is a service even an intermittent stream can provide if  
21 there's flow?

22 A Certainly.

23 Q So just because it's intermittent, it doesn't mean  
24 there's not services it can provide to a receiving  
25 water; correct?

1 A Correct. But as I said, they're usually very  
2 tolerant species.

3 Q So you said you don't know how long Stream C flows  
4 in the spring. Do you know how often it flows at all?

5 A Certainly I don't. I haven't seen the flow data.  
6 But just by looking at the stream, it actually doesn't  
7 look like a stream, it looks like a swale. And if you  
8 have flow over large periods of time, you get bank  
9 erosion, you get channelizations form instead of slight  
10 depressions.

11 Q Was there debris in the stream when you visited it?

12 A There was leaf litter primarily.

13 Q It was fall obviously.

14 A Right.

15 Q Did -- so you didn't return this spring to see if  
16 Stream C was flowing; correct?

17 A No.

18 Q The data you reviewed, you mentioned reviewing  
19 exhibits to Craig Roesler's deposition; correct?

20 A Yes.

21 Q And that deposition was taken prior to your report  
22 being drafted obviously.

23 A Right.

24 Q Okay. And your report is dated early November  
25 2011?

1 A Correct.

2 Q Have you reviewed Craig Roesler's final report that  
3 was published since your report was drafted?

4 A Yes. I just reviewed the one that came out recent.  
5 April?

6 Q Is that your testimony? April?

7 A I don't recall. It's the most recent one as I  
8 understand.

9 Q Okay. And you didn't review, at the time of your  
10 report, the DNR's proposed listing for Stream C on the  
11 State's 303(d) list of impaired waters; right?

12 A I don't believe so.

13 Q Now you mentioned that since you had only visited  
14 the site once, the document or the documentary evidence  
15 or materials you reviewed were important, especially I  
16 think the UW-Stevens Point report?

17 A Yes.

18 Q If you want to look at your screen, I'm showing you  
19 what's been marked Joint Exhibit 1032. Is this the  
20 UW-Stevens Point report?

21 A I don't have anything on my screen. Sorry. Right,  
22 yes.

23 Q I'll page through it here. It's about a six-page  
24 report. Is that consistent with your memory?

25 A Yes.



1 Q Now isn't it true the author of this report noted  
2 that there were -- let me back up one minute. When  
3 Mr. Van Camp asked you moments ago about -- right at the  
4 end of your direct testimony -- about impacts on  
5 macroinvertebrates, you were referring to impacts in the  
6 Flambeau River and not Stream C; correct?

7 A Correct.

8 Q Now isn't it true, Mr. -- I'm going to say Dimick,  
9 the author of this UW-Stevens Point report, concluded  
10 that there were differences in these macroinvertebrate  
11 communities above and below the mouth of Stream C;  
12 correct?

13 A Yes.

14 Q Okay.

15 A Which I was attributing --

16 Q I'm sorry, there's no question pending. Isn't it  
17 true at the end of his report he says, "Further study is  
18 needed to determine if those changes are due to metal  
19 inputs or some other factor"; correct?

20 A Correct.

21 Q But you were able to draw the conclusions in your  
22 report without further study; correct?

23 A The data at the mouth of the river, there was -- to  
24 me -- for the reasons I stated earlier about the  
25 differences between the reference and Stream C, it's

1 inappropriate to draw any conclusions. You've got a  
2 seasonal water supply and you would expect to have  
3 Chironomidaes there, which are more tolerant, which the  
4 State acknowledges in their aquatic use designations.  
5 At the mouth of the river, there are no impacts  
6 according to his data.

7 Q The mouth of the reference stream or Stream C?

8 A Right. Stream C.

9 Q Okay. So you're talking about the differences he  
10 notes in macroinvertebrates at the reference stream  
11 compared with the mouth of Stream C and you're saying  
12 it's inappropriate to compare those.

13 A No. In that particular -- I'm talking about  
14 upstream and downstream of the mouth, about a meter or  
15 so up Stream C. And at the main, up in the stream  
16 higher up, comparing Stream C with the reference.

17 Q You wouldn't disagree that he says there are  
18 differences in the macroinvertebrate populations  
19 upstream and downstream of the mouth of Stream C in the  
20 Flambeau River; correct?

21 A No. They're basically insignificant differences.

22 Q That's your opinion.

23 A Well, he kind of states that, as does Craig  
24 Roesler. There's very little effect there.

25 Q But --

1 A There's different -- I believe he said there are  
2 different species of Hyalella. Has no affect.

3 Q There's different species, and the UW-Stevens Point  
4 report concluded that further study was needed to see if  
5 those were due to metal inputs; correct? Yes or no.

6 A That's what the report stated.

7 Q Okay. The -- you say in your report because of or  
8 in your testimony today because of Stream C's  
9 intermittent nature already in Stream C, in Intermittent  
10 Stream C as you called it, there are more tolerant  
11 species of aquatic life; correct?

12 A Correct.

13 Q So because Stream C happens to be intermittent,  
14 they would also be more tolerant to copper and zinc; is  
15 that right?

16 A Likely.

17 Q You said you wouldn't expect to see, because of the  
18 intermittent nature of Stream C, you wouldn't expect to  
19 see long life-cycle species in the stream; correct?

20 A Correct.

21 Q But that's not to say that long life-cycle species  
22 can't use the stream such as fish that may use it for  
23 spawning that come from the Flambeau River; correct? If  
24 there's flow.

25 A That would be possible.

1 Q I'm just going to show you a few pictures. This  
2 one has been marked as Exhibit 16. Do you recognize  
3 that waterway?

4 A This is Stream C from Roesler's exhibit?

5 Q I'm asking you if you recognize it.

6 A Well, I can't -- that looks like a million streams,  
7 so you're going to have to give me more information than  
8 that.

9 Q Okay. Fair enough. Is it fair to say you haven't  
10 seen this photo before I've shown you just now; right?  
11 No one has provided it to you?

12 A All I've seen are the exhibit materials I've  
13 mentioned. I don't know if you're pulling this from  
14 that or not.

15 Q You don't recognize it though, this photo; right?

16 A I cannot tell you what that is, no.

17 Q Showing you what's been marked as Exhibit 17, have  
18 you seen that photo before?

19 A If it was in Roesler's exhibit I have.

20 Q You just don't remember?

21 A I don't remember.

22 Q And regardless of whether you've seen the photo  
23 before, do you recognize this waterway?

24 A It looks like a million streams I've seen.

25 Q Showing you what's been marked Exhibit 78, have you

1 seen that photo before?

2 A I'd like to repeat my earlier answer.

3 Q So that would be -- you haven't seen the photo  
4 before that you recall?

5 A I may have seen it. If it was in his exhibit, I  
6 saw it, but that was back in November when I wrote my  
7 report.

8 Q Okay. So you haven't reviewed the exhibits to  
9 Mr. Roesler's deposition since November.

10 A I haven't looked at the pictures, no.

11 Q Okay. Have you seen this waterway before  
12 regardless of whether you've seen the picture?

13 A I don't know.

14 Q Showing you what's been marked Exhibit 82. Have  
15 you seen that photo before?

16 A Perhaps.

17 Q Regardless of whether you've seen the photo, do you  
18 recognize this waterway?

19 A Perhaps.

20 Q Is perhaps another way of saying I don't know?

21 A I may have seen this waterway.

22 Q Showing you what's been marked as Exhibit 83. Have  
23 you seen this photo before?

24 A Yes.

25 Q When did you see it?

1 A In the exhibits, I believe.

2 Q To Mr. --

3 A From Roesler.

4 Q Okay. Do you know what that depicts?

5 A Yeah, that's the culvert leading into the biofilter  
6 or just down -- yeah, I think that's the biofilter.

7 Q Last one. Exhibit 84. Have you seen that photo  
8 before?

9 A I don't recall. It looks like the drainage from  
10 the biofilter.

11 MS. WESTERBERG: I have nothing further. Thank  
12 you.

13 THE COURT: Mr. Van Camp, anything?

14 REDIRECT EXAMINATION

15 BY MR. VAN CAMP:

16 Q I believe you were attempting to answer a question  
17 more extensively than you were permitted to as it  
18 related to what you attributed the difference in  
19 macroinvertebrates between -- that is the species of  
20 macroinvertebrates between the two bodies of water.

21 MS. WESTERBERG: Objecting to form. Leading.

22 THE COURT: Overruled.

23 THE WITNESS: The reports that were provided me  
24 talked about the differences and attributed them to  
25 possible metal influence, and what my experience has

1 been is perhaps, but it's very likely that the flow  
2 differences are the major stressor, as has been reported  
3 in all the literature I was citing. And the differences  
4 shown between some Hyalella upstream and downstream of  
5 the mouth of Stream C are really ecologically  
6 insignificant. There's still a lot of disagreement  
7 among benthic taxonomists about Hyalella in its  
8 speciation. We know that Hyalella is a very sensitive  
9 species, whether it's multiple species or not, it's a  
10 very sensitive species to metal exposures. And it is  
11 living upstream and downstream of the mouth of Stream C.

12 MR. VAN CAMP: Thank you. I have nothing  
13 further.

14 THE COURT: Ms. Westerberg, anything else?

15 MS. WESTERBERG: No. Thank you.

16 THE COURT: Then you may step down.

17 (Witness excused at 9:47 a.m.)

18 MR. VAN CAMP: Your Honor, as we are  
19 responsible for maintaining our own exhibits, I assume  
20 you don't want to see the resume at this time; is that  
21 correct?

22 THE COURT: Isn't it in as 55 something?

23 MR. VAN CAMP: 661 I offered --

24 THE COURT: You put it in as 661, but you were  
25 referring to it as 553 or something.

1 MR. VAN CAMP: Right. His report, including  
2 the resume, is 588.

3 THE COURT: Oh, okay.

4 MR. VAN CAMP: Perhaps I mis --

5 THE COURT: And that includes his resume.

6 MR. VAN CAMP: That's correct.

7 THE COURT: I can see it in there.

8 MR. VAN CAMP: Okay. Thank you. Thank you,  
9 Your Honor. At this time I would like to call  
10 Dr. Fairbrother.

11 **ANNE FAIRBROTHER, DEFENDANT'S WITNESS, SWORN,**

12 DIRECT EXAMINATION

13 BY MR. VAN CAMP:

14 Q Good morning, Dr. Fairbrother.

15 A Morning.

16 Q Would you please tell us your name.

17 A Anne Fairbrother.

18 Q And where are you from, Dr. Fairbrother?

19 A From -- I live in Issaquah, Washington, which is  
20 right by Seattle. Work in Bellevue.

21 Q You have been hired to prepare an expert report in  
22 this case, have you not?

23 A Yes, I have.

24 Q And you were hired by Flambeau Mining Company to do  
25 that?



1 A That is correct.

2 Q And did you prepare a report?

3 A Yes, I did.

4 Q And do you see the document sitting beside you on  
5 the witness stand?

6 A Yes.

7 Q It's been marked -- it's been marked as Exhibit  
8 587, I believe?

9 A That's correct.

10 Q And is that your expert report?

11 A Yes, it is.

12 Q Okay. I'd like to begin your testimony as well  
13 this morning with your educational background. Would  
14 you please tell us about your educational background.

15 A Assuming starting post-high school?

16 Q Yes, please. Thank you.

17 A I attended University of California at Davis and  
18 got an undergraduate Bachelors of Science degree in  
19 Wildlife Biology. I stayed on there for another four  
20 years and went to the School of Veterinary Medicine and  
21 got my Doctor of Veterinary medical degree.

22 After that in 1980 I moved here to Madison,  
23 Wisconsin and went to graduate school at the University  
24 and got a master's degree in 1982 and a Ph.D. in 1985  
25 from the Department of Veterinary Science. That was

1 prior to when the veterinary school was built here  
2 onsite, and basically did a degree in what we called at  
3 that time *Wildlife Disease Ecology*.

4 Q And what have you been doing since that time?

5 A After I got my Ph.D., I accepted a position at the  
6 US EPA and went to work for them as a research scientist  
7 in their laboratory in Corvallis, Oregon. I worked  
8 there until 1984 as a scientist and then also as a  
9 branch chief, managing a number of projects that were  
10 going on in the laboratory, and left and went to work in  
11 consulting. Also stayed in Corvallis, Oregon; joined a  
12 company called *Ecological Planning & Toxicology*. I  
13 worked for them for six years, and then I went to work  
14 for another company called Parametric and opened an  
15 office for them in Corvallis.

16 In 2002, I went back to work for the US EPA, still  
17 at the same laboratory there in Corvallis as a Branch  
18 Chief and then as Associate Director for Science in the  
19 laboratory. In 2007, I left the agency and moved up to  
20 Seattle and I went back to work for Parametric for about  
21 a year-and-a-half. And then for the last  
22 three-and-a-half years I've been working for a company  
23 called *Exponent* in Bellevue, Washington.

24 Q Could you tell us briefly the types of work that  
25 you were doing at each of those employments.

1 A With the EPA in my first stint with them as a  
2 research scientist, I was primarily looking at the  
3 intersection of chemical exposure and disease exposure  
4 and basically trying to understand how chemicals might  
5 affect the immune system of animals and then also  
6 eventually the endocrine system, primarily looking at  
7 wild birds.

8 Also did manage programs and what was just getting  
9 started then in biotechnology and also the beginnings of  
10 how we do site assessments for contaminated sites under  
11 the CERCLA, under the Superfund Program.

12 And then when I went to work in consulting, I  
13 continued to do work related to pesticide work, but also  
14 began to do a lot more work in the mining sector and  
15 looking at how mines, both large and small, impact both  
16 terrestrial and aquatic animals and their habitats. Did  
17 work in the western U.S. in several of the mines in  
18 California, in Utah, in Nevada, various places, as well  
19 as some mines overseas. And continued to do that  
20 while -- throughout my consulting time.

21 When I went back to EPA again, we had some programs  
22 that were then looking at some of the larger scale  
23 issues about how different types of impacts affect the  
24 to ecosystem; starting to get into some of the questions  
25 about ecosystem services; what it is that the different

1 parts of the systems can provide, both to people as well  
2 as to the ecosystem themselves; and also a fair amount  
3 more work with looking at ecological impacts of  
4 genetically-engineered crops.

5 And in the five years since I've been back in  
6 consulting, I've done quite a bit more work in  
7 contaminated site assessments, some more metals and  
8 mining kinds of work, as well as other types of organic  
9 compounds that contaminate sites.

10 Q Are you or do you participate in any professional  
11 organizations?

12 A Yes. I've been fairly active in three different  
13 professional organizations: The Wildlife Disease  
14 Association was the first organization that I joined and  
15 that's actually been around for quite some time; has  
16 probably about 1200 people worldwide. And in 1993 to  
17 '95, I was the president of that association after  
18 having served on council for quite a few years.

19 I also helped start the American Association of  
20 Wildlife Veterinarians and served as their president  
21 from 1991 to 1993, and have been active since my  
22 graduate years in the Society of Environmental  
23 Toxicology and Chemistry, served on council there and  
24 was also president in 2002 and 2003.

25 Q Have you been the recipient of any awards in your

1 fields?

2 A Yes. I received a gold medal award from EPA for  
3 some of the research that I've done there and a bronze  
4 medal as well. I received the Distinguished Service  
5 Award from the Wildlife Disease Association in  
6 recognition of the types of research information I've  
7 conducted to the wildlife disease field.

8 Q Do you have any publications?

9 A I have around -- I think I'm up to about 90 or so  
10 now in terms of peer-reviewed publications, books, and  
11 book chapters, as well of course quite a few technical  
12 reports.

13 Q Could you give us an idea of the areas in which you  
14 have published.

15 A A number of different areas. Of course as I've  
16 looked at different aspects from pesticides to metals in  
17 minings, work -- published a lot of work related to  
18 avian immunology and immunotoxicology; work in  
19 endocrinology. Also a number of papers on risk  
20 assessment methodology; how to do these kinds of  
21 contaminated site assessments, taking into account  
22 weight of evidence and a number of different stressors  
23 that I get pulled into those types of things.

24 And in the last five years that I was working at  
25 EPA, I was one of the primary authors of the EPA's

1 framework for risk assessment of metals in the  
2 environment for both human health and environmental  
3 assessment. That provides the guidance for EPA for how  
4 you do these types of assessments.

5 Q I'm sure I'm going to destroy this acronym, but it  
6 looks like HAZWOPR. H-a-z-w-o-p-r. Is that a  
7 certificate that you hold?

8 A Yes.

9 Q Could you tell me what HAZWOPR is.

10 A Hazardous waste operator. What this is is it's an  
11 initial 40 hours of training followed by annual 8-hour  
12 updates for understanding safety and health issues for  
13 working at contaminated sites.

14 Q Do you hold any other certificates?

15 A I'm a certified wildlife biologist.

16 Q How long have you held that certificate?

17 A Since 1995.

18 Q In connection with the work that you've done in  
19 this case, did you review any information and consider  
20 any written documentation?

21 A Yes, I did. I reviewed a number of pieces of  
22 information, most notably a lot of the data that had  
23 been collected by the Flambeau Mining Company on the  
24 concentrations of the copper and zinc in the water over  
25 the years, and that information was provided.

1 I also looked at the Roesler deposition, his  
2 testimony -- his deposition testimony, as well as a  
3 number of exhibits that were associated with that.  
4 There was also a couple of internal DNR memos related to  
5 the Flambeau Mining site and that was the Peerenboom  
6 memos that were dated 2001 and 2006.

7 Q Are those -- I'm sorry. Go ahead.

8 A And I also did review the expert reports from  
9 Dr. Chambers and Robert Nauta.

10 Q I'd like to ask you what work you have done  
11 involving copper and zinc in the environment.

12 A Well, I've done a fair amount of work related to  
13 contaminated sites in trying to assess whether copper,  
14 zinc and other metals in the environment are the cause  
15 of any decline in services of those different  
16 environments. So at specific mining sites primarily.

17 Q Okay. So drawing your attention to number four,  
18 item four in your expert report, you discuss copper and  
19 zinc in the environment?

20 A Um-hmm.

21 Q Could you describe what you have addressed there.

22 A Yeah. So what I was pointing out here are a couple  
23 things. First is that we know that copper and zinc are,  
24 like many of these other elements, naturally occurring  
25 in the environment and that organisms actually require

1 copper and zinc in order to have optimal health. They  
2 are what we call *required micronutrients*, so you have to  
3 have a certain amount of those elements present in the  
4 environment.

5 Now of course as with all things, the dose makes  
6 the poison and so although we need to have some copper  
7 and zinc, there could also be too much copper and zinc  
8 in the environment that would result in adverse effects  
9 and what we call *toxicity*. However, because these are  
10 naturally occurring organisms -- elements, the organisms  
11 have developed ways of being able to accommodate  
12 differing amounts of the elements. And different  
13 organisms have different tolerances. So although we do  
14 have some organisms like the ceriodaphnia that are very  
15 sensitive to copper, just a little bit of extra copper  
16 in the environment could be detrimental to them.

17 There are other organisms that are very tolerant of  
18 copper. And so if you kind of lay out like in a range  
19 of tolerance all these organisms, it can range anywhere  
20 from about five micrograms per liter, or what's known as  
21 parts per billion of copper, up to over a thousand parts  
22 per billion of copper can be in the environment without  
23 causing any effects.

24 So the environment in which the copper issue is  
25 being addressed is very important because not all



1 organisms live in all environments. So we have to  
2 understand which organisms are likely to be in the  
3 environment, and based on that, which are the ones that,  
4 you know, of those that are likely to be there, do we  
5 have those that are tolerant or do we have those that  
6 are sensitive-type organisms.

7 Q Drawing your attention to the number 5 issue in  
8 your expert report, you discuss bioavailability --

9 MR. VAN CAMP: I'm not quite sure why I'm  
10 ringing now. It seems like I'm got some feedback.

11 THE COURT: I thought I was too.

12 MR. VAN CAMP: I'll try to speak from back  
13 here. We'll try this.

14 Q Drawing your attention to the fifth item in your  
15 resume, it talks about bioavailability of metals in  
16 aquatic systems. Can you tell us what you're trying to  
17 relate there?

18 A Um-hmm. Certainly. So metals exist in the  
19 environment in many different ways. We have to  
20 understand a little bit about environmental chemistry in  
21 order to understand how organisms then become exposed to  
22 the metals that are in the environment. So when we have  
23 a metal like copper or zinc, it's what we call a  
24 divalent cation and essentially the molecule is  
25 positively charged, okay? So it has two pluses on it.

1 It's divalent. It's charged in that way.

2 So as we know, opposites attract, and anything  
3 that's negatively charged is going to attract this  
4 positively charged ion and they'll bind together. So,  
5 for example, if we have sulfates in the water or  
6 chlorine in the water, those are negatively charged and  
7 you'll get the copper binding to the chlorine. You'll  
8 have copper chlorates and copper nitrates and different  
9 types of binding.

10 Copper also really likes to bind to organic matter.  
11 There's a lot of negative charge in a lot of places for  
12 copper to bind to organic matter. And copper also then,  
13 and zinc and the other metals, got bound up into what we  
14 call the *crystal lattice* of particles, like sediment  
15 particles and soil particles and it gets to be inside  
16 those particles. So that's what copper does when it's  
17 in the environment.

18 Now, how does it then affect the fish and the  
19 invertebrates that are in the water? It will affect  
20 them, if the copper is not bound to something else, then  
21 it can bind to the fish or the invertebrate gills,  
22 because those gills are negatively charged. They're  
23 negatively charged because they really want to attract  
24 calcium or sodium in order to maintain osmotic balance  
25 and other kind of physiological parameters in the

1 organisms, and calcium and sodium are also positively  
2 charged. So when you have copper, it sees this negative  
3 charge on the gill, and then it has to kind of compete  
4 with calcium and sodium for binding to the gill.

5 So we have two things going on. We have what's  
6 called *complexation in the environment* where the copper  
7 or zinc binds with things in the environment and so it's  
8 not around to be available to the organism, and then we  
9 have competition between copper, zinc, calcium, sodium,  
10 and the other ions on the gill. And the various  
11 relationships between those things will determine how  
12 much then is available for binding -- for causing  
13 toxicity to the organism.

14 Obviously these kind of ratios differ in different  
15 environments. So what happens in one place may be  
16 different somewhere else. And when we, as chemists, go  
17 out and say so, how much copper is in this water or how  
18 much zinc is in this water, what the chemist can do is  
19 they can take and pull really strong acid in the water  
20 and they can pull all of that copper off of these  
21 negatively charged ions and out of the particles and  
22 they can say the total amount of copper in the water is  
23 this, and they'll give you that number. That's what's  
24 happened here in the water monitoring that's been done  
25 at the Flambeau Mine.

1           So we know the total amount of copper that's there,  
2 but what we don't know is of that total amount, how much  
3 is bound up into all these other things and therefore  
4 what's left over to be available to cause toxicity to  
5 the organism. Now typically this kind of thing has been  
6 known about for quite some time, and initially the way  
7 aquatic toxicologists took this into account would be to  
8 say well, we know if it's bound to the particles, it's  
9 not going to be available. So let's take this water and  
10 we're going to filter it first before we do the analysis  
11 of how much copper is in there. We typically filter  
12 through a .45 micron filter. That takes out most of the  
13 big particles, and what's left has been called the  
14 *dissolved metal*. It's not truly dissolved, there's  
15 still small amounts of organic matter in there and some  
16 of these other ions for the copper or zinc to bind to.

17           So knowing that that's the case, there's always  
18 been a hardness adjustment, and that hardness takes into  
19 account some of those other ions, but not all of them.  
20 And that's how -- we see this translated in the water  
21 quality criteria by taking a standard number and  
22 adjusting it for the hardness that's in that water in  
23 that particular site. So that gets us closer to kind of  
24 taking into account site-specific chemistries that  
25 change how much is actually available for binding on the

1 gills of these animals.

2       There's now a more complex model called the *Biotic*  
3 *Ligand Model* that was developed about a decade ago. It  
4 was originally published by Di Toro, et al. in 2001.  
5 And the Biotic Ligand Model then takes into account all  
6 these other aspects that can pull the copper in and bind  
7 it and keep it from being available for causing  
8 toxicity. EPA has adopted that in their latest version  
9 of the water quality criterion for copper. That Biotic  
10 Ligand Model is available for zinc, but EPA has not  
11 adopted it in their criterion yet.

12       So the kind of take-home message from all of this  
13 is that just measuring total amount of copper or total  
14 amount of zinc in the water does not really tell us for  
15 a particular site whether toxicity is going to occur or  
16 not. So if you're using totals, even when you do the  
17 hardness adjustment and compare it to the  
18 hardness-adjusted criteria, you can say whether, you  
19 know, those criteria are protective, but they're not  
20 predictive. If you're below those levels, you know that  
21 you're not going to have an effect. If you're above  
22 those levels, you really can't say whether it's going to  
23 be toxic or not because you still have not really  
24 identified what the bioavailable fraction is; how much  
25 of that copper or zinc is available to cause toxicity.

1 Q When you're talking about the levels of toxicity,  
2 would acute or chronic toxicity be the levels that  
3 you're referring to?

4 A Yes.

5 Q And just stepping back for a moment, remind us what  
6 was the data that was gathered relative to the Flambeau  
7 Mine site. What was actually measured?

8 A What was measured were total concentrations of  
9 copper and zinc.

10 Q With regard to that, was there any filtering that  
11 you were aware of through this .45 micron filter that  
12 you saw?

13 A No.

14 Q I'd like to take you then to Item 6 of your report,  
15 discussing water quality standards for metals, which  
16 maybe I was jumping ahead a little bit, but could you  
17 please -- I think I'm ringing again.

18 Could you please tell us what you are expressing  
19 about water quality standards for metals.

20 A Right. And I think I probably jumped ahead a  
21 little bit as well. What this section is talking about  
22 is the points that I was making that the water quality  
23 criterion are developed based on studies that are done  
24 in relatively pure water in the dissolve fraction. And  
25 so when we have a water quality criterion at the state

1 level, which kind of builds off of what happens from the  
2 federal criteria, that is then hardness adjusted to take  
3 into account some of the issues related to  
4 bioavailability.

5       There is an adjustment that can be done to try to  
6 take into account if you only have total what might be  
7 the dissolved versus total, but there's a fair amount of  
8 uncertainty when you do that type of approach. So  
9 again, we have a criterion that tells us that if you are  
10 below this number, you'll be protecting -- protective of  
11 the organisms in the water body. You will not expect  
12 any affects. If you're above that criterion number,  
13 then you need to do further work in order to ascertain  
14 whether there is actually a biological consequence of  
15 that.

16 Q     When you're referring to being below certain  
17 criterion --

18 A     Um-hmm.

19 Q     I'm sorry. Must be electric today or something, I  
20 don't know. When you're below, when you speak of being  
21 below a specific criterion, once again in this case  
22 we've talked about toxic levels, say acute toxicity or  
23 something. Tell us with regard or -- and if you would,  
24 use the words *acute toxicity* or *chronic toxicity*, if  
25 you're above or below that, how would that be

1 considered? Do you follow my question?

2 A I think so. Let's see if I answer what it is  
3 you're trying to get at. So an Acute Toxicity Criterion  
4 is based on mortality in a very short period of time.  
5 So if you have a concentration that's at that criterion  
6 or above that criterion and you have a sensitive  
7 organism, it should die very quickly. So acute means  
8 very short or very quickly.

9 Chronic is an exposure that occurs over a longer  
10 period of time and we usually measure in points such as  
11 growth or reproduction when we're talking about chronic  
12 toxicity.

13 Q When you were speaking about certain things being  
14 predictive of something, would you relate predictive to  
15 either acute or --

16 A Chronic.

17 Q -- chronic -- thank you.

18 A Yes.

19 Q Toxicity. Thank you.

20 A Yes. So predicting, what you want to try and do  
21 then is to say can I use these data to predict whether  
22 the concentration is at such a level that it would  
23 acutely affect the organisms. Would it kill the  
24 organisms right away if they were in that water. That's  
25 what the acute criteria would be. If an organism comes



1 into the water or water is discharged at that  
2 concentration or above that concentration, you should  
3 see that they die right away.

4 For chronic toxicity, if you're at levels that are  
5 chronically toxic, the organisms will still be alive,  
6 but they may not grow properly. They may not reproduce  
7 either at all or maybe just not as much.

8 Q So if those levels -- if levels are copper or zinc,  
9 for example, are below the acute toxicity level, I  
10 believe you said that that would be sort of a  
11 conservative approach; is that correct? And tell us why  
12 that is.

13 A Okay. Yes, it would be a conservative approach if  
14 the concentration in the water body is below the Acute  
15 Toxicity Criterion. You would not expect any of the  
16 organisms to die or to have an adverse affect. Again,  
17 because what we're assuming is in the -- using this type  
18 of water quality criterion that we have is that all of  
19 that concentration is available to kill the organism,  
20 and we know that that's not really true, so it's an  
21 overly conservative type of assumption.

22 Q Drawing your attention to Item 7 in your expert  
23 report. It's talking about impacts of copper and zinc  
24 discharge on the Flambeau River. Could you describe for  
25 the Court, please, what you have considered in that.

1 A So I considered the totality of the weight of  
2 evidence that we have available when addressing the  
3 question as to whether the concentrations of the metals  
4 in Stream C are likely to be toxic to those organisms.  
5 And we typically look at evidence, three different types  
6 of evidence, and that's generally done in a particular  
7 order, which I believe was actually done here by  
8 reviewing Craig Roesler's work.

9 So first we ask this question: Is the  
10 concentration of the metals in the water above the Acute  
11 Toxicity or Chronic Toxicity Criterion? And if no, then  
12 we're done, because as we were just talking about,  
13 that's a good conservative estimate and we feel  
14 confident that there's no effects.

15 If yes, if you exceed those criteria, then you have  
16 to take the next step which says I can't say for sure  
17 that it's not toxic, but I don't know yet if it is. So  
18 let's go and look at what the organisms in the stream  
19 are telling us. Now this is pretty standard practice  
20 for how you do a contaminated site assessment. It's  
21 also part of the guidance that the State of Wisconsin  
22 has that they use for when they try and determine  
23 whether a stream should be listed on the 303(d) Rule --  
24 303D list. And that's in their consolidated assessment  
25 and listing methodology. So they take these same three

1 steps that I'm going to tell you about.

2 So we've already talked about the water quality  
3 criterion number. The next step is to do an assessment  
4 of what organisms are present in the stream. This is  
5 the work where Craig Roesler went out and he used some  
6 kick nets to be able to get up all of the invertebrates  
7 that are in Stream C and looked at the invertebrates at  
8 the mouth of Stream C and also did some electroshocking  
9 in order to collect fish that were in the stream.

10 As pointed out, in order to do that, you need to  
11 know what is normal, what you might expect, and that's  
12 based on two things: One is the knowledge of the  
13 ecology of those types of streams that you just heard  
14 Dr. Burton talk about, and the other is if there's  
15 another stream nearby that's real similar in everything  
16 but for the contaminants that you're dealing with, you  
17 can look at that as a reference stream.

18 So if we look at the data that came out of this  
19 exercise, the invertebrate analysis was done by  
20 Mr. Jeffrey Dimick at the University of  
21 Wisconsin-Stevens Point and he pointed -- he used a  
22 couple of standard indices: One called the IBI, the  
23 other called the HBI, and these are indices that have  
24 been developed by scientists and adopted by the EPA and  
25 also by the State as indicative of what is to be

1 expected of an invertebrate community.

2 He found that the invertebrate community in Stream  
3 C, in the areas of Stream C and the mouth of the river  
4 that he looked at, were fair to good in the Flambeau.  
5 In some cases it was excellent. He also, as was pointed  
6 out, looked at -- pointed out the differences in  
7 Hyalella species above and below the mouth of Stream C,  
8 suggesting that those differences were probably due to  
9 the extra organic matter coming out of Stream C and  
10 causing a bloom of what we call *periphyton* on the rocks  
11 and cobbles and sediments in the Flambeau River just  
12 below the mouth of Stream C. Periphyton is kind of that  
13 green slime that you see on rocks and things when you're  
14 looking in the water and is basically algae and bacteria  
15 and things like that. And so there are different types  
16 of Hyalella that can take advantage of that by having  
17 scraping mouth parts so they can scrape it off the  
18 rocks.

19 If you look at the weight of evidence there between  
20 that type of description and also the fact that the  
21 copper and zinc concentrations are really no difference  
22 below the mouth and above the mouth of the stream, that  
23 it's a reasonable explanation for why there are  
24 differences there.

25 Beyond that, the kinds of invertebrates that were

1 found in the stream appear to be appropriate for that  
2 type of ephemeral stream. So that's the second of the  
3 three steps that we take in developing the weight of  
4 evidence for whether there's an effect.

5 The third step, and it is actually the most  
6 definitive, is to do some toxicity testing. And Craig  
7 Roesler collected water and he sent that to the state  
8 laboratory for doing both acute and chronic, so  
9 short-term and longer life-cycle studies with the  
10 standard test species that we use for looking at water  
11 toxicity.

12 Ceriodaphnia is an invertebrate and is one of the  
13 more sensitive invertebrates to copper. Fathead minnow  
14 is a standard warm water fish that was studied and is  
15 moderately sensitive to copper, and then selenastrum is  
16 an algae. And we all know that copper is a good  
17 algaecide because we use it to put into our fish tanks  
18 when we have aquariums at home, and use it in other way  
19 of taking care of algae. So algae are particularly  
20 sensitive to copper. And in both the acute, the  
21 short-term studies as well as the life cycle studies,  
22 there were no effects on these organisms. So the test  
23 waters gave the same results as expected control waters.

24 So based on these three lines of evidence of  
25 looking at the concentrations of the copper and zinc in

1 the water, then looking at the animals that are in  
2 Stream C and around the mouth of Stream C, and looking  
3 at the toxicity study results, it's my opinion that  
4 there is no effect of the copper or zinc on the aquatic  
5 biota in Stream C or its confluence with the Flambeau  
6 River.

7 Q During your observations at the Flambeau Mine site,  
8 you indicated that there was a strong smell of decay at  
9 one point during your examination, and how might that  
10 affect any of the things you've just described?

11 A Yes, there was, and also noted a lot of litter  
12 fall. Of course it was in October, so there was some  
13 new litter fall, but there was also an obvious amount of  
14 old forest duff of litter from previous years and  
15 there's a fair amount of what looked like organic  
16 sediment in the stream. And so that brings up again,  
17 taking us back to the discussion about bioavailability  
18 and what copper binds to. Copper likes to bind to  
19 organic matter and there certainly appeared to be a lot  
20 of organic matter in the stream and in that area, and  
21 the smell of decay kind of also brings that out, as well  
22 as the potential for sulfides and for some anoxic  
23 sentiments to be there. So not having oxygen.

24 And when you have that condition of the sulfides  
25 and lack of oxygen, you get what's called a *reducing*

1 environment, and again, it causes the copper, the zinc,  
2 the metals to be more tightly bound and to stay bound to  
3 sediments and other particles rather than being  
4 available for binding to gills of fish and  
5 invertebrates.

6 Q Have you, Dr. Fairbrother. Have the opinions --

7 MR. VAN CAMP: Oh, boy. I don't know what's  
8 going on.

9 THE COURT: I'll try to have somebody look at  
10 it over the break.

11 MR. VAN CAMP: Okay. I can't imagine what that  
12 is.

13 Q Have the opinions that you have expressed here  
14 today been expressed by you to a reasonable degree of  
15 scientific certainty within your fields?

16 A Yes, they have.

17 MR. VAN CAMP: I have no further questions for  
18 this witness. Thank you very much. (10:25 a.m.)

19 THE COURT: Did you have something to move in?

20 MR. VAN CAMP: Yes.

21 THE COURT: And that is?

22 MR. VAN CAMP: I will be marking the resume,  
23 that is the back part of Exhibit 587 as Exhibit 662 and  
24 ask that that be received.

25 THE COURT: Any objection?

1 MR. BENDER: No objection, Your Honor.

2 MR. VAN CAMP: Do you mind if I go through that  
3 quickly?

4 MR. BENDER: Are you asking me?

5 MR. VAN CAMP: Yes.

6 MR. BENDER: I don't mind.

7 MR. VAN CAMP: You looked like you were ready  
8 to go.

9 THE COURT: That's received. Mr. Bender.

10 CROSS-EXAMINATION

11 BY MR. BENDER:

12 Q Morning, Dr. Fairbrother. My name is David Bender.  
13 I'm one of the attorneys for the plaintiffs in this  
14 case. I believe, if I followed correctly, some of your  
15 testimony this morning was or much of it was that total  
16 recoverable copper is not the same thing as the toxic  
17 copper in a water body. Is that fair?

18 A That's correct.

19 Q And the reason is because only a part of what would  
20 be within the category of total recoverable copper is  
21 available to have toxic effects on aquatic life; is that  
22 correct?

23 A That's right.

24 Q And does the portion of copper that has the  
25 potential for toxic effects, does it have a name?



1 A Bioavailable copper.

2 Q Okay. How does that relate, if at all, to  
3 dissolved copper?

4 A It's a portion of the dissolved copper, but not all  
5 of it.

6 Q So there is total recoverable copper, and then  
7 within that category there are additional categories  
8 including dissolved copper?

9 A That's right.

10 Q And then within the category of dissolved copper is  
11 the potentially toxic copper; is that fair?

12 A Okay. That's a good way to put it.

13 Q Okay. And you also discussed calcium and sodium  
14 concentrations that have an effect on whether copper can  
15 be toxic; is that true?

16 A Yes.

17 Q And those are ions like copper can be; is that  
18 correct?

19 A Right.

20 Q And one of the reasons that copper can be toxic is  
21 because it competes with those elements; is that  
22 correct?

23 A Well, that's not why copper is toxic. Copper will  
24 substitute for calcium on the gills and one of the  
25 reasons why the amount of copper that it takes to be

1 toxic might be reduced from the amount, the total amount  
2 in the dissolved fraction is because sometimes that  
3 copper -- excuse me, the calcium has already bound to a  
4 site on the gills. So that binding site is then not  
5 available for copper.

6 Q Okay. And where there is more calcium in the  
7 water, there is less potential for copper to attach to  
8 the gills; is that correct?

9 A To some extent, yeah. But you also have to  
10 understand sort of the relative binding strength of the  
11 two and which one would outcompete the other for binding  
12 on the gills. So they can kind of knock each other off  
13 sometimes.

14 Q And the amount of calcium in water is otherwise  
15 referred to as hardness; is that correct?

16 A It's part of what's in hardness. So hardness can  
17 be measured as calcium carbonate. It's kind of a  
18 surrogate for all of the other ions that are there.

19 Q Okay. And do you know whether the Wisconsin water  
20 quality criteria for copper accounts for water hardness?

21 A There is a hardness adjustment that you can do to  
22 that, yes.

23 Q Okay. Do you know whether that has been done for  
24 streams such as Stream C?

25 A Well, I'm not exactly sure what you mean has been

1 done, but those -- if you look at the interpretation of  
2 whether the concentration in Stream C and comparing it  
3 like to the Acute Toxicity Criterion; for example, Craig  
4 Roesler and others did do the hardness adjustment before  
5 making that comparison.

6 Q Okay. So you understand that that was done.

7 A Yes.

8 Q Okay. Did you do any analysis of hardness of the  
9 water in Stream C?

10 A No.

11 Q Did you do any samples of the amount of biological  
12 material in the water in Stream C?

13 A Biological material. Can you explain what that is?

14 Q I thought you testified about biological material  
15 earlier today.

16 A I did not do any sampling in Stream C. Maybe I can  
17 just say that.

18 Q Okay. Did you ask for data of sampling in Stream C  
19 that may have been more specific to what we discussed as  
20 the potentially toxic amounts of copper?

21 A Yes. I did ask if there's information on dissolved  
22 fraction that had been filtered, and I asked if there  
23 was any information on measurement of any of the other  
24 ions that had been in the water or if there's any  
25 measurement of dissolved or total organic carbon.

1 Q And what were you told in response to those  
2 questions?

3 A No. At the time when I was -- wrote my report,  
4 there were no information. I was told that all of the  
5 concentrations that were measured were on total and that  
6 there had not been any filtered data, and that did not  
7 at that time have information on amount of organic  
8 carbon.

9 Q Who did you ask those questions to?

10 A Of Flambeau Mining Company.

11 Q Who specifically?

12 A You know, I don't remember specifically which  
13 person I asked that for, but it was when I was given all  
14 the information, I looked through that and asked if  
15 there was more.

16 Q It was some time after November 2011; is that fair?

17 A But before -- it was before I wrote my report.

18 Q Which is in March 2012?

19 A Yeah.

20 Q I believe one of the things that you cite in your  
21 report is something you refer to as Figure 3 --

22 A Um-hmm.

23 Q -- done by Foth --

24 A Um-hmm.

25 Q -- Company?

1 A Right. Right.

2 Q Can you see your screen?

3 A Yep.

4 Q Is that what you referred to in your report as  
5 Figure 3 from Foth?

6 A Yes.

7 Q Okay. And this is a part --

8 MR. VAN CAMP: Excuse me, Your Honor. Could we  
9 get an exhibit number on that if it's been --

10 MR. BENDER: I'm about to tell you.

11 THE COURT: That's a good point.

12 MR. BENDER: This is Exhibit 1025, Your Honor.

13 THE COURT: Okay. Thank you.

14 BY MR. BENDER:

15 Q So these are the data that you used for copper  
16 concentrations for your analysis; is that correct?

17 A Yeah, these were. Um-hmm.

18 Q And do you understand where these -- where this  
19 figure came from?

20 A From the sampling that had been done during the  
21 time that -- on the dates that these were related to.

22 Q That was what was represented to you?

23 A Yeah.

24 Q Was this a part of a larger document?

25 A It was -- no, I didn't see additional kind of

1 written information related to these. There's just  
2 additional data in terms of concentrations of copper and  
3 zinc in different places.

4 Q Were there additional figures? I mean this is  
5 labeled Figure 3. Do you see that?

6 A Right.

7 Q Were there Figures 1 and 2?

8 A Not that I recall.

9 Q Okay. Do you recall if there was a Figure 9?

10 A No.

11 Q And you asked someone at Flambeau for any  
12 information about dissolved copper; is that right?

13 A Yes.

14 Q And that would have been helpful for your analysis?

15 A Yes.

16 Q Showing you first what's marked as Figure 8. Have  
17 you seen that document before?

18 THE COURT: Is this Plaintiffs' Exhibit 8?

19 THE WITNESS: This is Figure 8, which is  
20 another piece of the same Exhibit 1025, Your Honor.

21 THE COURT: Oh.

22 THE WITNESS: Could I see a copy of my expert  
23 report again, please?

24 BY MR. BENDER:

25 Q Would that help you answer my question?

1 A Yes. Um-hmm. To answer your question, yes, I saw  
2 Figure 1, but I did not see Figure 9.

3 Q What about Figure 8?

4 A No.

5 Q Are you able to read the screen? Should I focus it  
6 further?

7 A That's good right there.

8 Q Okay. Do you see for some of these samples there  
9 are two columns?

10 A Um-hmm.

11 Q One for total and another one that says d-i-s-s  
12 period. Do you see that?

13 A Yes.

14 Q Do you understand that to be *dissolved*?

15 A I do.

16 Q And I guess this says copper concentrations in  
17 surface water monitoring 2006 through fall 2011. Do you  
18 see that?

19 A Yep.

20 Q And you recognize the map on which this is overlaid  
21 as the Flambeau Mine site?

22 A That's true.

23 Q So fair to say you did not take into account this  
24 figure or the data contained in it in your analysis?

25 A Yes, that's true.

1 Q Would it change your opinions at all if the  
2 dissolved fraction of copper were high compared to the  
3 total?

4 A Looking at that, the dissolved fraction cannot be  
5 higher than the total amount of copper. Total is total.  
6 That's everything. That's the dissolved plus the  
7 particulate copper. If you look on that figure, you'll  
8 see the dissolved fraction is higher than the total  
9 fraction, which leads me to believe that there's  
10 something incorrect about the analysis that was done.

11 Q So if the dissolved fraction is higher than the  
12 total fraction, there's something wrong with the  
13 sampling?

14 A Either the sampling or the filtering or the  
15 analysis or somewhere along the line, it's just not --  
16 by definition it's not possible for dissolved to be  
17 greater than total.

18 Q The total has to be the sum of its parts?

19 A Yes.

20 Q Do you understand where or do you know where the  
21 data you relied on came from?

22 A Beyond saying it came from this figure?

23 Q Correct.

24 A No.

25 Q Do you know who did the sampling?



1 A I don't.

2 Q Do you know whether there was any quality control  
3 of that sampling?

4 A I have not seen any of the laboratory information  
5 related to sampling.

6 Q Would it be fair to say that if the sampling had  
7 dissolved fractions higher than the total fractions,  
8 that you would be suspect of some of that sampling?

9 A I would certainly ask to see some of the quality  
10 assurance data.

11 Q Did you ask to see any quality assurance data of  
12 the data you relied on for your report?

13 A No, I did not, neither from the Flambeau work or  
14 from Craig Roesler's work.

15 Q Do you know how hardness in Stream C can change  
16 from season to season?

17 A Yes, it can change from season to season if that's  
18 the question.

19 Q Do you know whether it does?

20 A It appears that it might. There was a couple of  
21 seasonal samplings that Craig Roesler did, like in April  
22 and September, and there's -- not unexpectedly there's  
23 some differences. That type of variation is pretty  
24 normal in the environment.

25 Q And can it change from year to year?

1 A Yes.

2 Q And does the amount of copper sampled in Stream C  
3 change from year to year?

4 A Yes, it does.

5 Q Does the amount of biological material in Stream C  
6 change from year to year?

7 A Yes.

8 Q And does it change from season to season?

9 A Yes, it would.

10 Q And the biological toxicity testing that Craig  
11 Roesler did that you relied on for your opinions, do you  
12 know whether that testing accounted for variations from  
13 year to year?

14 A He only did it once.

15 Q So it can't account for that variation; correct?

16 A Correct.

17 Q And do you know whether it accounted for any  
18 variations at all?

19 A Only in terms of some minor spatial variations  
20 because he collected the samples over a finite area of  
21 space, yeah.

22 Q So he collected multiple samples from in Stream C;  
23 correct?

24 A Um-hmm, yeah, but --

25 Q But they happened on one day.

1 A Correct.

2 Q So they're representative of what the copper,  
3 hardness, biological material, and other factors were on  
4 that specific day; correct?

5 A That's correct.

6 Q And there's no other data or you're not aware of  
7 any other toxicity testing from that stream; correct?

8 A I'm not aware of any.

9 Q And your opinion was based on that one day of  
10 analysis; correct?

11 A That's correct.

12 Q You also testified that you did not believe that  
13 there were any effects on the daphnia, fathead minnow,  
14 and the algae?

15 A Ceriodaphnia, which is different from daphnia.

16 So --

17 Q I understand that.

18 A -- I did not --

19 Q I prefer not to have to --

20 A Ceriodaphnia, algae and the fathead minnow.

21 Q Thank you. I'll refer to daphnia and you'll know  
22 which species I'm talking about?

23 A No. I would prefer we refer to ceriodaphnia,  
24 because daphnia as a genus has a different sensitivity  
25 to copper than ceriodaphnia does.

1 Q Ceriodaphnia.

2 A Yes.

3 Q Am I pronouncing it right?

4 A That's correct.

5 Q So those are the three species or the three  
6 subjects of sampling; is that correct?

7 A Of testing.

8 Q Of testing.

9 A Yes.

10 Q Was there an effect on the algae growth between the  
11 sample from Stream C and the control sample at the lab?

12 A The lab reported there was about a 21 percent  
13 decrease in alga growth in the Stream C sample.

14 Q Okay. So decrease meaning there's less plant  
15 growth in the Stream C sample; correct?

16 A That's correct.

17 Q And as I think you mentioned before, algae is  
18 sensitive to copper and that's why we use it to clean  
19 our fish tanks; correct?

20 A Yes.

21 MR. BENDER: No further questions, Your Honor.

22 THE COURT: Mr. Van Camp, anything else?

23 MR. VAN CAMP: I have nothing further. Thank  
24 you very much.

25 (Witness excused at 10:40 a.m.)

1 THE COURT: All right. Why don't we take a  
2 15-minute recess at this time.

3 (Recess 10:40-10:55 a.m.)

4 THE CLERK: This Honorable Court is again in  
5 session. Please be seated and come to order.

6 THE COURT: Mr. Van Camp, you may call your  
7 next witness.

8 MR. VAN CAMP: At this time Flambeau Mining  
9 Company rests.

10 THE COURT: Oh, all right. Mr. Cassidy, are  
11 you going to call the next witness or a witness?

12 MR. CASSIDY: Your Honor, we have no witnesses  
13 to call in rebuttal. We're prepared to give a  
14 summation.

15 THE COURT: I'm sorry?

16 MR. CASSIDY: We have no witnesses to call in  
17 rebuttal, Your Honor, so we're --

18 THE COURT: So you're resting.

19 MR. CASSIDY: -- prepared to go ahead. We're  
20 resting, yes.

21 THE COURT: All right. Well, we got the  
22 microphone fixed.

23 MR. CASSIDY: We are prepared to give a short  
24 summation to the Court.

25 THE COURT: Do you want to do that?

1 MR. VAN CAMP: Sure. I'd be happy to do that.  
2 Also I would like to renew the motion that has been  
3 previously filed, simply indicating that it be  
4 considered at this time as well.

5 THE COURT: All right. Good. Mr. Cassidy,  
6 I'll hear you.

7 MR. CASSIDY: Thank you, Your Honor. I'm  
8 taking a chance by moving the microphone, but may it  
9 please the Court. I'd like to first commend opposing  
10 counsel on a well tried case. It doesn't mean we agree  
11 and --

12 THE COURT: I understand that.

13 MR. CASSIDY: -- I just have a short summation  
14 for the Court. I understand the Court is going to  
15 review briefing shortly.

16 The plaintiffs in this case have presented  
17 substantial evidence to show and meet our burden on at  
18 least three ways, Your Honor. I just would start with  
19 the Court's summary judgment order where the Court  
20 determined or the only reason this Court didn't rule for  
21 the plaintiffs on summary judgment was there was a  
22 declaration by Elizabeth Day that indicated there was  
23 some issue of fact about whether Stream C existed north  
24 of Copper Park Lane. Ms. Day went out on one day in  
25 October of 2011 and couldn't find a channel, and as a

1 result of that, the Court determined there was an issue  
2 of fact that would require a trial.

3 Your Honor, for three reasons, the plaintiffs have  
4 met their burden. First, Stream C is one stream. It  
5 exists south of Copper Park Lane. It exists north of  
6 Copper Park Lane. It exists north of the biofilter. It  
7 flows down from Highway 27. It goes under a culvert  
8 there, it proceeds slightly west, goes under two more  
9 culverts going southwest, two culverts that are three  
10 feet in diameter side by side. It comes down past the  
11 biofilter on the east side, goes under another culvert,  
12 the farmer's culvert, the stub road, and then continues  
13 on down to Copper Park Lane. It's not a long distance  
14 and it's one stream, and for that reason alone, and it  
15 discharges when the biofilter enters that stream, it's  
16 the same below and above Copper Park Lane. There's no  
17 reason, and the evidence clearly shows that there's no  
18 reason to distinguish between the two.

19 And how do we know that? We have eyewitnesses who  
20 testified about the channel that Ms. Day couldn't find  
21 above Copper Park Lane. I'm just going to show quickly  
22 two photos that serve to illustrate this point. This is  
23 a photo, as you know, Your Honor, taken from Copper Park  
24 Lane looking north. It's in 2004, and you can clearly  
25 see Stream C flowing down through there. This is the

1 channel that Ms. Day couldn't find during her visit.  
2 And in case there was any question about whether that  
3 channel still exists or did exist throughout the whole  
4 time we've been talking about for the last five days,  
5 here it is again in April of 2011, seven years later.  
6 If you superimposed these two pictures on top of one  
7 another, you could tell there's more flow in 2011.  
8 There's a little less flow, maybe that's moderate flow  
9 in 2004, but you can even see the wet ground around the  
10 stream in that picture. It is identical to what we see  
11 seven years later, almost exactly in 2011.

12 We -- so we have photographs showing the channel.  
13 We have it in the spring. You saw the photograph. We  
14 have in the winter showing that channel. How else do we  
15 know that Stream C is just -- starts above the biofilter  
16 and continues down south of Copper Park Lane? There are  
17 culverts designed to transfer -- transport water.  
18 There's called the railroad culverts I already  
19 mentioned, the farm road culverts. All these are  
20 designed to transport water. There's a culvert under  
21 Copper Park Lane. There's no difference between that  
22 culvert or any of the culverts north of there.

23 Your Honor, I said we didn't agree all the time  
24 with counsel, but interestingly we agree with a lot of  
25 what their consultants and their employees say up until



1 this litigation began. You've heard from their  
2 consultants and you've seen their maps that represented  
3 Stream C; called it an intermittent stream for years and  
4 years until this litigation. And the Court can take  
5 that into consideration when weighing the testimony of  
6 the witnesses who came in here and all of a sudden  
7 decided that the blue line wasn't on the map but was  
8 actually only in their head.

9 We know where the samples were taken. There is --  
10 there are sample points that go up and go by the  
11 biofilter. They're north of the biofilter. And they  
12 follow the same blue line. That's where the water was.  
13 That's where the water was running. That's where they  
14 were taking their samples with scoopers.

15 When Ms. Murphy, who has been out there probably  
16 more than anyone to take samples testified about seeing  
17 flow, she drew it on a map. We have that and we marked  
18 it as Exhibit 88, and it's the same map that she says  
19 she saw flow at this point, at this point, at this  
20 point, and then further south of the biofilter here down  
21 here. It's not a coincidence that all those places that  
22 she saw flow match up with the blue line that is Stream  
23 C north of Copper Park Lane.

24 When Ms. Murphy testified about where she went to  
25 look for flow to determine where she would go take

1 samples north of Copper Park Lane, she said she went to  
2 Copper Park Lane and if she saw flow coming there, she  
3 knew it was a good day to take samples.

4       Finally, Your Honor, we have Ms. Murphy's logbook.  
5 I won't go through -- and I won't go through all the  
6 evidence because this is going to be a short summation,  
7 but -- I can't go through all the evidence. But in her  
8 logbook, which is Exhibit 8, she talks repeatedly about  
9 seeing the biofilter flowing into Stream C; about flow  
10 observed in Stream C above Copper Park Lane. And  
11 finally on April 25, 2009, she talks about the low flow  
12 across the outlet of the biofilter into Stream C and she  
13 makes an interesting note. She notes that there is a  
14 tree cut upstream that has fallen across the channel.  
15 That's channel north of the biofilter. It's north of  
16 Copper Park Lane and it's north of the biofilter. She  
17 identified it as a channel in a contemporaneous note  
18 when she was there. When I asked her about it, she  
19 didn't want to call it a channel, but eventually she  
20 agreed that it was a channel.

21       The testimony that you heard from some of the  
22 defendant's witnesses is simply revisionist history,  
23 Your Honor. You heard downstream become downgradient.  
24 You heard upstream become upgradient. You heard Stream  
25 C become a topographical feature. These are their words

1 that they used all the way up until this litigation were  
2 the words -- are the words that should be given the most  
3 weight, because now there is an interest in not calling  
4 this a stream when they did for years and years.

5 So the plaintiffs have presented more than ample  
6 evidence to show that this is simply one stream. If the  
7 Court does not find that Stream C exists north of Copper  
8 Park Lane and it's all one stream, the plaintiffs  
9 secondly would also win because there is an indirect  
10 discharge into this area that they call the Stream C  
11 Watershed or the Wetland 7.

12 You heard the defendant's consultant, Mr. Donohue,  
13 testify about copper that got from north of the  
14 biofilter all the way through that drainageway, all the  
15 way down Stream C, all the way down that blue line,  
16 north to south. That shows the conveyance of water  
17 through that short area. It flows south. That's a  
18 topographical truth.

19 We heard some questions about whether or not you  
20 measured the direction of flow. All the witnesses said  
21 the water came out of the biofilter to the east and then  
22 turned south. There is no dye test needed, Your Honor,  
23 to show water flowing from the distance from you to me.  
24 There was a gradient there. There were sampling sites.  
25 And this is what the biofilter was designed to do. It

1 was put there to gather stormwater from this Industrial  
2 Outlot, to passively treat it, and then to discharge it  
3 into that area so it would flow downstream.

4 Again, Exhibit 1009, Jana Murphy's letter to the  
5 Department of Natural Resources, talks about flow coming  
6 out of the biofilter to Stream C and eventually to the  
7 Flambeau River. Ms. Murphy also talked about channels  
8 running from the biofilter heading east to Stream C.  
9 And the caveat most of the witnesses wanted to give was  
10 with sufficient flow. And we of course agree with that.  
11 This is an intermittent stream we're talking about. It  
12 doesn't flow all the time. But when there's sufficient  
13 flow, pollutants are transported, water is transported,  
14 and it all comes out, goes into that watershed, goes  
15 into the wetland, whatever you want to call it, and  
16 makes its way down to Copper Park Lane to a water that  
17 Your Honor has already found to be a water of the United  
18 States. So there is an indirect discharge if the Court  
19 does not find that Stream C simply exists all the way  
20 north to Highway 27.

21 Third, Your Honor, there is a significant nexus  
22 between the area that is east of the biofilter and the  
23 Flambeau River. Mr. Paler in his argument the other day  
24 for the motion to dismiss talked about *Rapanos* and I'm  
25 just going to briefly recite the facts of *Rapanos*

1 because it's important to distinguish this case that  
2 we've heard about all week from *Rapanos*.

3 In *Rapanos*, there was static fill in wetlands, so  
4 we're not talking about flowing water carrying  
5 pollutants. We're not talking about stormwater. It was  
6 fill put in a wetland that was attached to an irrigation  
7 ditch that flowed into another irrigation ditch, that  
8 went into a tributary, and then into a traditional  
9 navigable water.

10 The distance was somewhere between 12 and 20 miles,  
11 Your Honor. Here we have about a half a mile to the  
12 Flambeau River. If there's a spectrum of cases where  
13 there's federal jurisdiction, *Rapanos* is over here on  
14 the spectrum. Our case is on the other side. It isn't  
15 even close on the facts. There is direct adjacency from  
16 the watershed and the water body north of Copper Park  
17 Lane with Stream C south of Copper Park Lane. Ms. Day,  
18 as you'll see in her testimony, admits that.

19 So for all the facts and all the reasons you've  
20 already discussed in your summary judgment order, the  
21 short distance, the obvious flow, the pollutant  
22 transport, and also the biological connection. We heard  
23 testimony from the defendants again -- again, the  
24 defendant's own consultant, who said there is no reason  
25 to believe, and this is the Blue Iris report, there is

1 no reason to believe that during periods of high flow,  
2 fish will not migrate upstream to the biofilter, and  
3 during periods of high flow, fish will not migrate  
4 downstream to the biofilter. So there is a physical  
5 hydrologic connection. There is a chemical connection  
6 of copper and pollutants getting downstream, and there  
7 is a biological connection of fish migrating upstream  
8 and downstream.

9 So for all those reasons, Your Honor, or for any  
10 one of those reasons, the plaintiffs have presented more  
11 than ample evidence to carry their burden on liability.  
12 I understand the defendants have the burden on the  
13 penalty phase. I can address that quickly rather than  
14 have us both --

15 THE COURT: Why don't you do that.

16 MR. CASSIDY: Okay, Your Honor. As Your Honor  
17 has already ruled, the defendants have the burden. In  
18 terms of penalties, the penalties should start at the  
19 maximum and then it's the defendant's burden to bring  
20 those down. The plaintiffs have -- I'll talk about  
21 penalties first. As this Court has already acknowledged  
22 or found, penalties serve a purpose. We've heard some  
23 testimony in the penalty phase of this case about the  
24 infiltration basins and that they've been installed and  
25 that they've been working for a few months. That is not

1 a sufficient period of time to know whether they will  
2 work into the future, whether there will be discharges  
3 into Stream C. The penalties will help ensure the  
4 pollution control that the company has put in place as a  
5 result of all -- everything that's led up to this case.  
6 They put it in place. It's worked for a few months;  
7 will continue to work; will continue to -- they'll  
8 continue to maintain it. It will continue to be  
9 effective to protect Stream C from further discharges,  
10 toxic metals.

11 There have been a lot of false starts since 2004.  
12 There are -- so there's reason to believe that those  
13 penalties are necessary to keep the company motivated,  
14 to keep the company vigilant about their control.

15 Your Honor, we acknowledge there were some facts  
16 that were presented yesterday that may serve to mitigate  
17 some of the penalties. We're not asking for the  
18 maximum. We think there are some -- there may be some  
19 mitigation based on some of the things we've heard. But  
20 I would say, Your Honor, nothing we heard this morning  
21 is really, should go to mitigating those penalties.  
22 Very little weight I think should be given to any of the  
23 testimony we heard simply because it became clear that  
24 the experts were testifying on limited knowledge. They  
25 were not given all the materials that they needed to

1 really make an informed decision.

2 Mr. Burton was shown a number of pictures of Stream  
3 C that he didn't recognize but was able to say it looked  
4 like about hundreds of other streams he had seen over  
5 the course of his career. Ms. Fairbrother clearly did  
6 not receive all the data she needed to make a totally  
7 informed decision. So to the extent the Court is going  
8 to consider the testimony this morning, we believe it  
9 should be given little weight with regard to mitigation  
10 of any penalties.

11 With regard -- and then finally with regard to the  
12 penalties, we understand that there was a position by  
13 DNR regarding the mining permit and whether or not that  
14 was sufficient. But the company -- this is not a  
15 mom-and-pop company that is not sophisticated. They had  
16 lawyers. They had people as early as -- lawyers as  
17 early as 2005 telling them that they should not -- that  
18 they should continue to be covered under the mining  
19 permit, even though they may be covered under a WPDS  
20 permit because the mining permit was going to be less  
21 stringent. And that's -- so they knew as early as 2005  
22 that there was a possibility that maybe they should get  
23 a Clean Water Act permit.

24 You heard testimony that they never approached DNR,  
25 despite a lot of testimony about openness and



1 collaboration. They never went to DNR with that advice  
2 and they never sought a permit, even though they were  
3 told they might need one. And the reason they didn't  
4 was because they knew -- they knew they were operating  
5 under a less stringent permit.

6 That's important, Your Honor. A Clean Water Act  
7 permit is not a paper exercise. It involves compliance  
8 with water quality standards. That --

9 THE COURT: Is there anything about the Clean  
10 Water Act permit that would make it anything that  
11 defendant was doing improper that wouldn't also have  
12 been improper as far as the DNR was concerned under the  
13 arrangement that it had?

14 MR. CASSIDY: It has different requirements,  
15 Your Honor.

16 THE COURT: But I'm -- it may, but I want to  
17 know is there anything specific that you're pointing to  
18 that defendant did or did not do that would make it  
19 liable under the Clean Water Act permit that wouldn't  
20 also make it liable under the arrangement with the DNR.

21 MR. CASSIDY: Well, if I understand your  
22 question, Your Honor, the compliance with water quality  
23 standards is an important one. There was no such  
24 requirement under the mining permit. That requirement  
25 exists under every Clean Water Act permit. And the

1 water quality -- there are two bedrock pieces of Clean  
2 Water Act permits: One, numeric limits; one, compliance  
3 with water quantity standards. You need both. So  
4 that's one requirement.

5 Secondly, there are monitoring reporting  
6 requirements that come under the Clean Water Act permit  
7 that weren't necessarily included in the mining permit.  
8 The Clean Water Act permit is a five-year permit, Your  
9 Honor. It's designed that way to be renewed every five  
10 years as things change, as more monitoring results come  
11 in, and this permit has been in place -- mining permit  
12 had been in place, you know, for several years longer  
13 than that. So there's checks and balances along the  
14 way.

15 And finally, Clean Water Act permits allow --  
16 inform EPA and inform citizens and citizens may enforce  
17 them.

18 THE COURT: I'm not sure you're answering my  
19 question. What exactly are you saying -- what specify  
20 acts or omissions are there of defendants that would  
21 have violated the Clean Water Act permit that were --  
22 well, that were overlooked by the DNR or didn't have any  
23 application to the DNR arrangement?

24 MR. CASSIDY: Well, Your Honor, the specific  
25 acts are the requirements of the permit and so their

1 discharges into Stream C --

2 THE COURT: So essentially any discharges into  
3 Stream C that went on into the Flambeau are violations  
4 of the Clean Water Act and they wouldn't have bothered  
5 the DNR, is that what you're saying, if it had any  
6 consequence from the DNR?

7 MR. CASSIDY: Well, they're violations because  
8 there was no permit. Depending on what that permit --  
9 what the requirements of the permit were and what they  
10 were established as water quality standards and what  
11 requirements they were designed to meet under that  
12 permit would determine whether they'd be violations  
13 under that permit. But that's the whole point of  
14 getting the permit and that's the reason as for  
15 injunctive relief, we've asked the Court to order the  
16 company to get a Clean Water Act permit to cover any  
17 discharges, any future discharges into Stream C, and  
18 those requirements would go forward with the company.

19 We'd also ask the Court, as far as injunctive  
20 relief, that there would be continued monitoring of  
21 Stream C and the Flambeau River downstream of the  
22 confluence of where Stream C comes into the Flambeau  
23 River for at least three years. The monitoring of  
24 testing and monitoring to ensure that they've really  
25 solved the problem of discharges into Stream C is

1 critical moving forward.

2 For all those reasons, Your Honor, we believe  
3 penalties are appropriate in this case and the  
4 injunctive relief of applying for a permit they should  
5 have had many years ago to comply with the Clean Water  
6 Act and continued monitoring would be the proper remedy  
7 in this case.

8 THE COURT: Thank you.

9 MR. CASSIDY: Thank you.

10 THE COURT: Mr. Van Camp.

11 MR. VAN CAMP: Thank you, Your Honor. Counsel.

12 There's a very clear and easy path to a determination  
13 regarding the evidence that was presented at trial, and  
14 perhaps the plaintiffs and the defendants are in  
15 agreement about this, and that is that a summary  
16 judgment in this case was issued and it was a summary  
17 judgment that considered mountains of evidence and  
18 documents and briefs and issues and things like that.  
19 But the measurement of what happened here in this trial  
20 is a measurement to determine whether or not the  
21 plaintiffs added any credible evidence at trial that  
22 would be beneficial to a determination of the issues  
23 left open by the Court at summary judgment.

24 It's not going to be the stipulated facts because  
25 those weren't disputed in the summary judgment motion,

1 and it isn't going to be the responses to the Requests  
2 to Admit because those were considered in the summary  
3 judgment as well. The test is going to be whether the  
4 plaintiffs, before they rested their case, added any  
5 evidence in response to the open questions left in the  
6 summary judgment decision. And they did not.

7 If we look briefly at the individuals who testified  
8 on behalf of plaintiff before the plaintiff rested,  
9 there was Dr. Coleman, and his evidence and statements  
10 were considered in the summary judgment. But there was  
11 a distinct difference between the evidence at trial and  
12 the evidence that was offered at summary judgment.

13 Dr. Coleman testified at trial that there were three  
14 observations that he had of the biofilter overflowing.  
15 Those were all in 2004 prior to the five-year statute of  
16 limitations that is relevant to things in this case.

17 As to the one observation that he claims that he  
18 had in 2007, he was noncommittal. He backed off of the  
19 statement that well, maybe I wasn't at the biofilter  
20 that day. So after January of 2006, Dr. Coleman had  
21 absolutely no observations regarding discharges from the  
22 biofilter. He also critically admitted most of his  
23 observations were made from Copper Park Lane. I'm going  
24 to get into the vegetation in a moment, but I think --

25 THE COURT: Not literally.

1 MR. VAN CAMP: Well, no, we've been in the  
2 vegetation, but we'll discuss it at more length. But  
3 the one thing that is painfully clear is that this is a  
4 very vegetated area; that the biofilter outlet is  
5 overgrown and choked with plants and there are rocks all  
6 over the place and there is absolutely no possibility  
7 that a discharge from the biofilter could be viewed from  
8 Copper Park Lane.

9 Now Mr. Roesler testified and he testified about a  
10 series of things that he did, tests that he conducted,  
11 information that he obtained and he admitted that it had  
12 nothing to do with trying to determine significant nexus  
13 or connection or flow directions or transport. It was  
14 tests at specific locations to determine for those  
15 specific times whether there were copper concentrations  
16 at that specific location and whether or not there were  
17 zinc concentrations at that location.

18 I find it interesting that the plaintiffs have  
19 criticized Dr. Fairbrother for considering a limited  
20 amount of evidence and not considering all of the  
21 evidence and I find it interesting because the  
22 plaintiffs are attempting to make their case on that  
23 same exact limited evidence. So while they criticize  
24 her for considering that limited evidence, if it is  
25 subject to criticism, that same criticism applies to

1    them.

2           Mr. Roesler did not express any opinions in this  
3    case.  He did not express any opinions, much less  
4    express opinions to a reasonable degree of certainty  
5    within any science.  He denied impact of the one thing  
6    the plaintiffs spent a great deal of time trying to  
7    demonstrate involving dissolved oxygen.  When the Court  
8    asked him about it, he said it had no impact.  So  
9    nothing he did connected any discharges from the  
10   biofilter to anything.

11          So again, Mr. Roesler added nothing to the record  
12   that existed on summary judgment.  At absolute best, he  
13   identified a few observations and contended in a very  
14   general way that he saw discharges to Stream C.  
15   Mr. Roesler did not get down on his hands and knees and  
16   separate weeds and grasses the way that Mr. Hutchison or  
17   Dr. Day did.  It was a general comment, nothing more.

18          I think that the photographs are illustrative of a  
19   couple of things.  The plaintiffs showed you two  
20   photographs of water flowing in their closing argument.  
21   They were years apart.  Both of them were from April.  
22   The point is that this is an intermittent stream.  It is  
23   a very intermittent stream; that there may be flow on  
24   occasion infrequently, but there is no evidence in the  
25   record of flow through the wetland or out of the

1 biofilter through month after month after month.

2 Out of the biofilter the flow was stipulated as  
3 part of the summary judgment motion. So the flow we  
4 would be looking at in trial would be flow that somehow  
5 would connect anything coming out of the biofilter with  
6 any flow that was described above the wetland, in the  
7 wetland, below the wetland. And there absolutely isn't  
8 any evidence that was introduced that can connect that  
9 flow.

10 And one of the reasons for that is because many of  
11 the witnesses agreed that volume of flow would be  
12 indicative of where the flow might go. What evidence is  
13 there in the record of the volume of flow? There is  
14 absolutely none. There is no evidence of the volume of  
15 flow out of the biofilter. There's no evidence of  
16 volume of flow coming into the wetland from the north.  
17 There's no evidence of flow within the wetland. And  
18 there's absolutely no evidence of volume of flow going  
19 south out of the wetland. There's no evidence of flow  
20 even in Stream C, south of Copper Park Lane.

21 Frequency is another issue. What is the evidence  
22 that was introduced at trial that added anything to the  
23 record on summary judgment about the frequency of flow  
24 at any of these locations? Other than the stipulated  
25 facts which were part of the record in the summary



1 judgment motion, no evidence was introduced about  
2 frequency.

3 So, we get to the issue of significant. Are the  
4 only occasions when there is flow the photographs that  
5 the plaintiffs have introduced that were available to  
6 them at the time of the motion for summary judgment that  
7 were included? Is it only a few days in April? Is it  
8 more days? When is it? What is it? What does it  
9 include? How much of the water flowing out of the  
10 biofilter made it even to the bottom of the berm?

11 If it made it to the bottom of the berm, there  
12 cannot be any dispute that it went into a wetland. If  
13 it went into the wetland, what happened to it? Where  
14 did it go? Did it go into the ground? Did it go into  
15 the air? There is no evidence that connects any of that  
16 flow to any of the evidence that's been presented at  
17 trial.

18 What is the effect of that wetland, Wetland 7, on  
19 anything? What is the effect of that on Stream C?  
20 What's the effect of that on Stream C, whether it is  
21 above or below Copper Park Lane? What is the effect of  
22 that wetland to the Flambeau River? There is no  
23 evidence in this record, and especially before the  
24 plaintiffs rested, about what effect that wetland might  
25 have.

1 Mr. Nauta was not helpful. Mr. Nauta agreed that  
2 he based his -- much of his opinion about the flow on a  
3 cartoon. And by the way, if you look at that evidence,  
4 that cartoon is a cartoon in the documents related to  
5 the infiltration basins. Mr. Nauta didn't even know  
6 where he was when he was out there, how far he walked,  
7 how far -- how much further he would have to walk, how  
8 much more he would have to observe to determine anything  
9 about Stream C and its effect on the Flambeau River.

10 What he saw when he went out there was depicted in  
11 his photographs. He didn't see any flow. He saw snow  
12 and ice, except for a few feet within a couple of  
13 hundred yards south of Copper Park Lane. There was no  
14 indication of what it was doing. There were no tests  
15 taken. No idea where it came from. And if it wasn't  
16 frozen, it was almost certainly groundwater.

17 Judge, I think that the plaintiffs clearly  
18 understood that the trial in this case was going to be  
19 about the issues remaining after the summary judgment  
20 decision. I believe they understood that they have the  
21 obligation to connect the dots. I believe they had the  
22 obligation to demonstrate what that wetland was doing,  
23 why it was doing it, how it was doing it, and how any  
24 nexus that existed was significant. And nobody  
25 testified about anything of significance.

1           Addressing a few of the comments of counsel, I  
2 think that what they have demonstrated was available in  
3 the documents that were shown to the Court in summary  
4 judgment. Those documents had the topography of the  
5 area, and what they have shown is that water flows  
6 downhill. I do not believe that the pages and pages and  
7 pages of *Rapanos* are about whether water flows downhill.  
8 I don't believe that Justice Kennedy, in his concurring  
9 opinion, intended to say that if water flows downhill,  
10 there's a significant nexus.

11           As the plaintiffs reminded this Court, it is not  
12 about what it is called, so whether it is called Stream  
13 C, whether it is called that blue line, whether it is  
14 called those blue arrows, whether it is called  
15 downgradient or upgradient, that's not the issue. Water  
16 does flow downhill. But there is a biofilter and this  
17 is a point source case and there has not been any  
18 connection tied to anything that came out of that  
19 biofilter and Stream C or the Flambeau River.

20           Interestingly, the plaintiffs agreed that with  
21 sufficient flow, there would be pictures like the  
22 pictures you saw. What they don't do at all is tell you  
23 when or how often there is sufficient flow. They don't  
24 tell you what sufficient flow is. They have absolutely  
25 no information about sufficient flow. They talk to you

1 about the need for a PDES permit, but they can't explain  
2 to you what would be gained by a PDES permit over  
3 anything that exists.

4 I think it's interesting that Jim Bertolacini, who  
5 has spent 20 plus years with the Department of Natural  
6 Resources, would tell clients in Flambeau's situation  
7 that they don't even need one of those permits. Nothing  
8 would be gained by that. They say that they would have  
9 monitoring if this Court concluded that penalties or  
10 injunctive order were in place. If this Court heard  
11 anything about the processes that were instituted by  
12 Flambeau Mining Company, by the Department over the  
13 entire period of time that Flambeau has been in  
14 Wisconsin, is they have monitored everything. And when  
15 they weren't monitoring it, they added monitoring. And  
16 they remonitored it. And they shared their monitoring.  
17 And they shared their information with the plaintiffs,  
18 they shared their information with the DNR, they shared  
19 their information with anybody that wanted to see it.  
20 They have hidden nothing, which I think takes us to the  
21 liability section of this case.

22 I told you when I made my opening statement that  
23 when Flambeau came to Wisconsin, they intended to do it  
24 as a good neighbor. And they did. They instituted  
25 policies and procedures to protect Wisconsin's

1 environment. On the 80 percent or more of their site  
2 that was reclaimed, they achieved the promise and  
3 objective that they set out. They reclaimed it.

4 We're not here about that. We're here because some  
5 local people asked Flambeau to give them, to donate, to  
6 make something available to them that became very  
7 valuable to them. Flambeau did it. Flambeau went to  
8 the trouble to ask the DNR if they could modify their  
9 plan which would have avoided all of this, to modify  
10 their plan so that they could then give this to the  
11 community so that the community could use it for  
12 revenue, for future industrial growth.

13 You heard about the operation of the company. I  
14 mean Ivan Shanks is not employed by them any longer, but  
15 he came all the way down here to testify, to tell you  
16 about the culture, about how far they go to make sure  
17 they don't harm the environment; about how he could shut  
18 down a mining operation by locking them out if they  
19 couldn't handle the water; how they operated at one-half  
20 of their permitted level; how they put pads under trucks  
21 so that they wouldn't drip oil. They were a good  
22 neighbor.

23 You heard the community leader, Al Christenson,  
24 testify they built a library. They gave them all kinds  
25 of money for other facilities, and how they have now an

1 industrial area that they can use for development and  
2 that they have a development committee and 90 percent of  
3 the funding for that comes from this.

4 And then you heard from a lot of regulators. And  
5 in the summary judgment decision, Larry Lynch was  
6 considered. But Larry Lynch was here and he testified  
7 and he was a very, very credible witness. He was very  
8 knowledgeable. He understood what went on. And he  
9 built a relationship with this company and they worked  
10 together to do what needed to be done to complete their  
11 work, including reclamation.

12 You heard many times from Jim Hutchison. There are  
13 very capable consultants at Foth that were hired to do  
14 virtually everything: design the monitoring, design the  
15 plans, do the things that needed to be done and do them  
16 right.

17 You heard from Phil Fauble, who took over from  
18 Larry Lynch who said never saw them in violation. Found  
19 them cooperative to work with. The DNR never over 20  
20 years had to take enforcement action to get something to  
21 happen. It happened. Penalties would be  
22 counterproductive. We don't want to send a message to a  
23 company that was willing to change their plan which  
24 would have gotten them probably out of the state  
25 entirely, by being a good neighbor, to give something to

1 the community, and then penalize them for that.

2 Because as that happened, in short order in order  
3 to continue to work with the environmental interests and  
4 to continue to work with the local interests, if there  
5 were shortcomings, and we're talking about a very small  
6 area here, this Industrial Outlot, if there were  
7 shortcomings, they dug up the parking lots and redid  
8 them and covered them. If there was copper in a ditch,  
9 they dug it out and covered it up so it wouldn't be a  
10 problem again. If there was copper someplace else that  
11 was discovered, they took out the rail spur and they  
12 covered it up and they planted it. All of the  
13 information about toxicity is taken as an average over  
14 time by the plaintiffs' experts in this case when, in  
15 fact, the toxicity went down continuously over this  
16 period to the point where it didn't most recently exceed  
17 the levels that had been complained about by the  
18 plaintiffs in this case.

19 The import of the final witnesses was to bring  
20 highly educated, capable people to this court to say  
21 that they have looked at the data, they have looked at  
22 the information, they have examined the property, unlike  
23 Nauta who wrote his report and then decided to go see  
24 it. They examined it and they determined that there  
25 absolutely was no damage.

1 Judge, I think if we go back to the summary  
2 judgment decision and we look at whether or not the  
3 plaintiffs have contributed any additional evidence upon  
4 which this Court can determine that under Kennedy and  
5 *Rapanos* there is a significant nexus, there's no  
6 alternative but to say they haven't done it. Thank you.

7 THE COURT: Thank you. Mr. Cassidy, did you  
8 wish to say anything further?

9 MR. CASSIDY: No, Your Honor.

10 THE COURT: Okay. Thank you very much. I  
11 really appreciate the civility that you all have shown  
12 to each other and your cooperation with the Court and  
13 the schedule. And we're decided now that you will have  
14 something in in response to the motion for judgment as a  
15 matter of law by June 4th; right?

16 MR. CASSIDY: Yes, Your Honor.

17 MS. MCGILLIVAY: Yes, Your Honor.

18 THE COURT: Okay. Anything else hanging up?

19 MS. MCGILLIVAY: No, Your Honor.

20 THE COURT: All right. Court will adjourn.

21 MS. MCGILLIVAY: Thank you, Your Honor.

22 (Proceedings concluded at 11:47 a.m.)  
23

24 \* \* \* \* \*  
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1 I, LYNETTE SWENSON, Certified Realtime and Merit  
2 Reporter in and for the State of Wisconsin, certify that  
3 the foregoing is a true and accurate record of the  
4 proceedings held on the 25th day of May 2012 before the  
5 Honorable Barbara B. Crabb, District Judge for the  
6 Western District of Wisconsin, in my presence and  
7 reduced to writing in accordance with my stenographic  
8 notes made at said time and place.

9 Dated this 11th day of September 2012.

10  
11 /s/\_\_\_\_\_

12 Lynette Swenson, CRR, RMR, CBC  
13 Federal Court Reporter  
14  
15

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